

# 康希诺生物股份公司 **CanSino Biologics Inc.**

(A joint stock company incorporated in the People's Republic of China with limited liability)

STOCK CODE : 6185

## GLOBAL OFFERING

Joint Sponsors, Joint Global Coordinators, Joint Bookrunners and Joint Lead Managers

**Morgan Stanley**



A CITIC Securities  
Company

Joint Global Coordinators, Joint Bookrunners and Joint Lead Managers



Joint Bookrunners and Joint Lead Managers

**ICBC**  **工银国际**

 **招銀国际**  
CMB INTERNATIONAL

## IMPORTANT

*If you are in any doubt about any of the contents of this Prospectus, you should obtain independent professional advice.*

# CanSino Biologics Inc. 康希諾生物股份公司

*(a joint stock company incorporated in the People's Republic of China with limited liability)*

## GLOBAL OFFERING

Number of Offer Shares in the Global Offering	: 57,248,600 H Shares (subject to the Over-allotment Option)
Number of Hong Kong Offer Shares	: 5,725,200 H Shares (subject to adjustment)
Number of International Offer Shares	: 51,523,400 H Shares (subject to adjustment and the Over-allotment Option)
Maximum Offer Price	: HK\$22.00 per H Share, plus brokerage of 1%, Stock Exchange trading fee of 0.005% and SFC transaction levy of 0.0027% (payable in full on application in Hong Kong Dollars and subject to refund)
Nominal Value	: RMB1.00 per H Share
Stock Code	: 6185

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**ICBC 工银国际**



Hong Kong Exchanges and Clearing Limited, The Stock Exchange of Hong Kong Limited and Hong Kong Securities Clearing Company Limited take no responsibility for the contents of this Prospectus, make no representation as to its accuracy or completeness, and expressly disclaim any liability whatsoever for any loss howsoever arising from or in reliance upon the whole or any part of the contents of this Prospectus.

A copy of this Prospectus, having attached thereto the documents specified in "Appendix VIII – Documents Delivered to the Registrar of Companies and Available for Inspection" to this Prospectus, has been registered by the Registrar of Companies in Hong Kong as required by section 342C of the Companies (Winding Up and Miscellaneous Provisions) Ordinance of Hong Kong (Chapter 32 of the Laws of Hong Kong). The Securities and Futures Commission and the Registrar of Companies in Hong Kong take no responsibility for the contents of this Prospectus or any other document referred to above.

The Offer Price is expected to be fixed by agreement between the Joint Representatives (on behalf of the Underwriters) and us on the Price Determination Date. The Price Determination Date is expected to be on or about Friday, March 22, 2019 and, in any event, not later than Wednesday, March 27, 2019. The Offer Price will be not more than HK\$22.00 and is currently expected to be not less than HK\$21.00. Applicants for Hong Kong Offer Shares are required to pay, on application, the maximum offer price of HK\$22.00 for each Hong Kong Offer Share together with brokerage of 1%, SFC transaction levy of 0.0027% and Stock Exchange trading fee of 0.005%, subject to refund if the Offer Price should be lower than HK\$22.00. If, for any reason, the Joint Representatives (on behalf of the Underwriters) and us are unable to reach an agreement on the Offer Price, the Global Offering will not proceed and will lapse.

The Joint Representatives (on behalf of the Underwriters, and with our consent) may reduce the number of Offer Shares and/or the indicative Offer Price range that stated in this Prospectus at any time prior to the morning of the last day for lodging applications under the Hong Kong Public Offering. In such a case, a notice of the reduction in the number of Offer Shares and/or the indicative offer price range will be published in the South China Morning Post (in English) and the Hong Kong Economic Times (in Chinese) as well as our website [www.cansinotech.com](http://www.cansinotech.com) not later than the morning of the last day for lodging applications under the Hong Kong Public Offering. Further details are set forth in the sections entitled "Structure of the Global Offering – Conditions of the Global Offering" and "How to Apply for Hong Kong Offer Shares" in this Prospectus. If applications for Hong Kong Offer Shares have been submitted prior to the day which is the last day for lodging applications under the Hong Kong Public Offer, then such applications can be subsequently withdrawn if the number of Offer Shares and/or the indicative Offer Price range is so reduced.

We are incorporated, and substantially all of our businesses are located, in the PRC. Potential investors should be aware of the differences in legal, economic and financial systems between the PRC and Hong Kong and that there are different risk factors relating to investments in PRC-incorporated companies. Potential investors should also be aware that the regulatory framework in the PRC is different from the regulatory framework in Hong Kong and should take into consideration the different market nature of our H Share. Such differences and risk factors are set out in "Risk Factors," "Appendix V – Summary of Principal Legal and Regulatory Provisions" and "Appendix VI – Summary of the Articles of Association" to this Prospectus. Prior to making an investment decision, prospective investors should consider carefully all the information set forth in this Prospectus, including but not limited to the risk factors set forth in the section headed "Risk Factors" in this Prospectus.

The obligations of the Hong Kong Underwriters under the Hong Kong Underwriting Agreement to subscribe for, and to procure applicants for the subscription for, the Hong Kong Offer Shares, are subject to termination by the Joint Representatives (on behalf of the Hong Kong Underwriters) if certain grounds arise prior to 8:00 a.m. on the day that trading in the H Shares commences on the Stock Exchange. Such grounds are set out in the section entitled "Underwriting – Underwriting Arrangements and Expenses – Hong Kong Public Offering – Grounds for Termination" in this Prospectus. It is important that you refer to that section for further details.

The Offer Shares have not been and will not be registered under the U.S. Securities Act or any state securities laws of the United States and may not be offered, sold, pledged or transferred within the United States, except that the Offer Shares may be offered, sold or delivered to QIBs in the United States in reliance on an exemption from registration under the U.S. Securities Act provided by, and in accordance with the restrictions of, Rule 144A or another available exemption from registration under the U.S. Securities Act or outside the United States in offshore transactions in accordance with Rule 903 or Rule 904 of Regulation S.

March 18, 2019

## **First, a few words.....**

Dear reader,

This section isn't really about our company – we have about 500 pages to tell you all about that. (And don't forget the Risk Factors section.)

This section is really about where we came from, how we got here and where we want to be. It's all about choice.

One hot summer day about ten years ago, at a big backyard in the suburb of Toronto, a group of us, close friends and families, were having a summer barbecue. Weather was perfect. Kids were playing. After a few beers (or maybe more than a few), we – all scientists and managers in the vaccine field – started talking about the stories of my recent trips back to China and the huge gap between China and Canada in vaccine field.

Nobody disagreed with the facts; but to do something about it – that took some convincing. We all had a lot to give up – senior jobs at global big pharmas, prestige, money, comfortable life – a dream life for many. What are we balancing that with? Not a lot.

At the end, we all felt that we just needed to do the right thing. We made the choice, and decided to give it all up and do it. (Hey, we were as surprised with our own choice as anybody.)

Our company's name – CanSino (康希諾). In Chinese it means health, hope and promises – things we truly valued. In English it means Canada and China (duh!).

The toughest part of it all, looking back, wasn't giving up the job, money or prestige. It was the family. Most of our families stayed in Canada, and we could only see them a few times a year. When you think about your young kids and teenagers growing up without dads, when you know your wife had to shovel out of 10 inches of deep snow early morning in -20°C wind chill all by herself – those were the tough moments.

Fast forward to 2015, Sierra Leone, where we were doing clinical trials for our Ebola vaccine. Conditions were rough. Extreme poverty. Power outages all the time. Besides Ebola, they were facing malaria, HIV and many other infections. What struck many of us the most was the inevitability the people felt about early death (average life span was about 40 some years), and the indifference they felt about life and existence. Even our driver once told us, if he didn't die from Ebola, he probably would have died from something else.

That line was like a reset button that put our lives in perspective for many of us. If there were any doubts in our mind about whether what we were doing had a point, they were gone by then. In Africa, in China and even in more developed countries, infectious diseases are still causing pain and suffering to people even though many of these diseases can be prevented through vaccination.

And that's our story in a nutshell. We took an adventure, made some difficult choices, worked hard, and made CanSino what it is today. Regardless of your decision here (because that's really secondary), we invite you to join us in our efforts to make a difference in the world today.

Because this world *can* be a better place. One with health, hope and promises.



Xuefeng Yu



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## EXPECTED TIMETABLE<sup>(1)</sup>

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Latest time for completing electronic applications under

**White Form eIPO** service through the

designated website [www.eipo.com.hk](http://www.eipo.com.hk)<sup>(2)</sup> .....11:30 a.m. on Thursday,  
March 21, 2019

Application lists open<sup>(3)</sup> .....11:45 a.m. on Thursday,  
March 21, 2019

Latest time for lodging **WHITE** and

**YELLOW** Application Forms .....12:00 noon on Thursday,  
March 21, 2019

Latest time for completing payment of **White Form eIPO**

applications by effecting internet banking transfer(s) or

PPS payment transfer(s) .....12:00 noon on Thursday,  
March 21, 2019

Latest time for giving electronic application instructions

to HKSCC<sup>(4)</sup> .....12:00 noon on Thursday,  
March 21, 2019

Application lists close<sup>(3)</sup> .....12:00 noon on Thursday,  
March 21, 2019

Expected Price Determination Date<sup>(5)</sup> .....Friday, March 22, 2019

(1) Announcement of the Offer Price, the level of indications of interest in the International Offering, the level of application in the Hong Kong Public Offering and the basis of allocation of the Hong Kong Offer Shares under the Hong Kong Public Offering to be published in the South China Morning Post (in English) and the Hong Kong Economic Times (in Chinese) on or before .....Wednesday, March 27, 2019

(2) Results of allocations in the Hong Kong Public Offering (with successful applicants' identification document numbers, where appropriate) to be available through a variety of channels as described in "How to Apply for Hong Kong Offer Shares – 11. Publication of Results" .....Wednesday, March 27, 2019

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## EXPECTED TIMETABLE<sup>(1)</sup>

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- (3) A full announcement of the Hong Kong Public Offering containing (1) and (2) above to be published on the website of the Stock Exchange at [www.hkexnews.hk](http://www.hkexnews.hk) and our Company's website at [www.cansinotech.com](http://www.cansinotech.com)<sup>(6)</sup> from .....Wednesday, March 27, 2019

Results of allocations in the Hong Kong Public Offering will be available at [www.iporesults.com.hk](http://www.iporesults.com.hk) (alternatively: English <https://www.eipo.com.hk/en/Allotment>; Chinese <https://www.eipo.com.hk/zh-hk/Allotment>) with a "search by ID" function from .....Wednesday, March 27, 2019

Dispatch of H Share certificates or deposit of the H Share certificates into CCASS in respect of wholly or partially successful applications pursuant to the Hong Kong Public Offering on or before<sup>(7)(9)</sup> .....Wednesday, March 27, 2019

Dispatch of refund cheques and White Form e-Refund payment instructions in respect of wholly or partially successful applications (if applicable) or wholly or partially unsuccessful applications pursuant to the Hong Kong Public Offering on or before<sup>(8)(9)</sup> .....Wednesday, March 27, 2019

Dealings in the H Shares on the Stock Exchange expected to Commence on .....Thursday, March 28, 2019

### Notes:

- (1) All times refer to Hong Kong local time, except as otherwise stated.
- (2) You will not be permitted to submit your application through the designated website at [www.eipo.com.hk](http://www.eipo.com.hk) after 11:30 a.m. on the last day for submitting applications. If you have already submitted your application and obtained an application reference number from the designated website at or before 11:30 a.m., you will be permitted to continue the application process (by completing payment of application monies) until 12:00 noon on the last day for submitting applications, when the application lists close.
- (3) If there is a tropical cyclone warning signal number 8 or above or a "black" rainstorm warning in force in Hong Kong at any time between 9:00 a.m. and 12:00 noon on Thursday, March 21, 2019, the application lists will not open or close on that day. See "How to Apply for Hong Kong Offer Shares – 10. Effect of Bad Weather on the Opening of the Application Lists" in this Prospectus.
- (4) Applicants who apply for Hong Kong Offer Shares by giving electronic application instructions to HKSCC via CCASS should refer to "How to Apply for Hong Kong Offer Shares – 6. Applying by Giving Electronic Application Instructions to HKSCC via CCASS."
- (5) The Price Determination Date is expected to be on or around Friday, March 22, 2019 and, in any event, not later than Wednesday, March 27, 2019. If, for any reason, the Offer Price is not agreed between the Joint Representatives and us by Wednesday, March 27, 2019, the Global Offering will not proceed and will lapse.
- (6) None of the website or any of the information contained on the website forms part of this Prospectus.



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## EXPECTED TIMETABLE<sup>(1)</sup>

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- (7) H Share certificates will only become valid at 8:00 a.m. on Thursday, March 28, 2019, provided that the Global Offering has become unconditional and the right of termination described in “Underwriting – Underwriting Arrangements and Expenses – Hong Kong Public Offering – Grounds for Termination” has not been exercised. Investors who trade H Shares prior to the receipt of share certificates or the share certificates becoming valid do so at their own risk.
- (8) e-Refund payment instructions/refund cheques will be issued in respect of wholly or partially unsuccessful applications pursuant to the Hong Kong Public Offering and also in respect of wholly or partially successful applications in the event that the final Offer Price is less than the price payable per Offer Share on application. Part of the applicant’s Hong Kong identity card number or passport number, or, if the application is made by joint applicants, part of the Hong Kong identity card number or passport number of the first-named applicant, provided by the applicant(s) may be printed on the refund cheque, if any. Such data would also be transferred to a third party for refund purposes. Banks may require verification of an applicant’s Hong Kong identity card number or passport number before encashment of the refund cheque. Inaccurate completion of an applicant’s Hong Kong identity card number or passport number may invalidate or delay encashment of the refund cheque.
- (9) Applicants who have applied on **WHITE** Application Forms or **White Form eIPO** 1,000,000 or more Hong Kong Offer Shares and have provided all information required by the Application Form may collect any refund cheques and/or H Share certificates in person from our Company’s H Share Registrar, Computershare Hong Kong Investor Services Limited, at Shops 1712-1716, 17th Floor, Hopewell Centre, 183 Queen’s Road East, Wan Chai, Hong Kong from 9:00 a.m. to 1:00 p.m. on Wednesday, March 27, 2019 or such other date as notified by our Company in the newspapers as the date of dispatch/collection of H Share certificates/e-Refund payment instructions/refund cheques. Applicants being individuals who is eligible for personal collection may not authorize any other person to collect on their behalf. Applicants being corporations which is eligible for personal collection must attend through their authorized representatives bearing letters of authorization from their corporation stamped with the corporation’s chop. Both individuals and authorized representatives of corporations must produce evidence of identity acceptable to our H Share Registrar at the time of collection.

Applicants who have applied on **YELLOW** Application Forms for 1,000,000 or more Hong Kong Offer Shares may collect their refund cheques, if any, in person but may not elect to collect their H Share certificates as such H Share certificates will be issued in the name of HKSCC Nominees and deposited into CCASS for the credit to their or the designated CCASS Participants’ stock account as stated in their Application Forms. The procedures for collection of refund cheques for **YELLOW** Application Form applicants are the same as those for **WHITE** Application Form applicants.

Applicants who have applied for Hong Kong Offer Shares by giving electronic application instructions to HKSCC via CCASS should refer to “How to Apply for Hong Kong Offer Shares – 14. Dispatch/Collection of Share Certificates and Refund Monies – Personal Collection – (iv) If you apply via electronic application instructions to HKSCC” for details.

Applicants who have applied through the **White Form eIPO** service and paid their applications monies through single bank accounts may have refund monies (if any) dispatched to the bank account in the form of e-Refund payment instructions. Applicants who have applied through the **White Form eIPO** service and paid their application monies through multiple bank accounts may have refund monies (if any) dispatched to the address as specified in their application instructions in the form of refund cheques by ordinary post at their own risk.

Applicants who have applied for less than 1,000,000 Hong Kong Offer Shares and any uncollected H Share certificates and/or refund cheques will be dispatched by ordinary post, at the applicants’ risk, to the addresses specified in the relevant applications.

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## **EXPECTED TIMETABLE<sup>(1)</sup>**

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Further information is set out in “How to Apply for Hong Kong Offer Shares – 13. Refund of Application Monies” and “How to Apply for Hong Kong Offer Shares – 14. Dispatch/Collection of Share Certificates and Refund Monies.”

The above expected timetable is a summary only. You should refer to “Structure of the Global Offering” and “How to Apply for Hong Kong Offer Shares” for details of the structure of the Global Offering, including the conditions of the Global Offering, and the procedures for application for the Hong Kong Offer Shares.



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### IMPORTANT NOTICE TO INVESTORS

*This Prospectus is issued by CanSino Biologics Inc. solely in connection with the Hong Kong Public Offering and does not constitute an offer to sell or a solicitation of an offer to buy any security other than the Hong Kong Offer Shares offered by this Prospectus pursuant to the Hong Kong Public Offering. This Prospectus may not be used for the purpose of, and does not constitute, an offer or a solicitation of an offer to subscribe for or buy, any security in any other jurisdiction or in any other circumstances. No action has been taken to permit a public offering of the Offer Shares or the distribution of this Prospectus in any jurisdiction other than Hong Kong. The distribution of this Prospectus and the offering and sale of the Offer Shares in other jurisdictions are subject to restrictions and may not be made except as permitted under the applicable securities laws of such jurisdictions pursuant to registration with or authorization by the relevant securities regulatory authorities or an exemption therefrom.*

*You should rely only on the information contained in this Prospectus and the Application Forms to make your investment decision. We have not authorized anyone to provide you with information that is different from what is contained in this Prospectus. Any information or representation not made in this Prospectus must not be relied on by you as having been authorized by us, the Joint Sponsors, Joint Representatives, Joint Global Coordinators, Joint Bookrunners and Joint Lead Managers, any of the Underwriters, any of our or their respective directors, officers or representatives, or any other person or party involved in the Global Offering.*

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## SUMMARY

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*This summary aims to give you an overview of the information contained in this Prospectus. As this is a summary, it does not contain all the information that may be important to you. You should read this Prospectus in its entirety before you decided to invest in the Offer Shares. There are risks associated with any investment. Some of the particular risks in investing in the Offer Shares are set out in the section headed “Risk Factors” in this Prospectus. You should read that section carefully before you decide to invest in the Offer Shares. In particular, we are a biotechnology company seeking to list on the Main Board of the Stock Exchange under Chapter 18A of the Listing Rules on the basis that we are unable to meet the requirements under Rule 8.05(1), (2) or (3) of the Listing Rules. There are unique challenges, risks and uncertainties associated with investing in companies such as ours. Your investment decision should be made in light of these considerations.*

### OVERVIEW

CanSino’s mission is to develop, manufacture and commercialize high quality, innovative and affordable vaccines. Our mission is being fulfilled by an accomplished team of founders and senior management – world-class scientists with a record of leading the development of innovative international vaccines at global pharmaceutical companies such as Sanofi Pasteur, AstraZeneca and Wyeth (now Pfizer). Other management members are also vaccine industry veterans from leading multi-national and domestic biologics companies.

Our vaccine pipeline, which is strategically designed to address China’s vast and underserved market, can be summarized into three categories: (i) globally innovative vaccines to serve China’s unmet medical needs (such as Ad5-EBOV, our TB Booster candidate and our PBPV candidate); (ii) potential first-in-class vaccines in China developed to replace the current primary vaccines with higher-quality world-class vaccines (such as our DTcP vaccine candidates and MCV4 candidate); and (iii) potential best-in-class vaccines in China developed to compete with the imported products in the PRC market (such as our PCV13i candidate).

We are developing 15 vaccine candidates for 12 disease areas. In addition to our three near-commercial assets covering meningococcal diseases and Ebola virus disease, we have six vaccine candidates in clinical trial stage or CTA stage. We also have six pre-clinical vaccine candidates, including one combination vaccine candidate. The comprehensiveness and robustness of this pipeline is illustrated through the following:

- There are currently approximately 50 to 60 vaccines on the global market. Of these, 16 innovative vaccines have been developed since 2000, according to the CIC Report, and our vaccine pipeline is expected to compete with nine;
- Of the world’s top ten vaccines in terms of 2017 sales revenue, our vaccine pipeline is expected to compete with six, and these six had an aggregate global sales revenue of US\$11.3 billion in 2017; and
- Of the nine vaccine categories recommended in 2017 by the United States CDC for children from birth through six years old, our vaccine pipeline is expected to cover five.

## SUMMARY

Our vaccine pipeline is developed through four key platform technologies: (i) adenovirus-based viral vector vaccine technology; (ii) conjugation technology; (iii) protein structure design and recombinant technology; and (iv) formulation technology. In preparation for commercial production in the near future, we have built a manufacturing facility, located in Tianjin, designed, qualified and operated to meet international standards. The facility currently allows us to have an annual bulk production capacity of approximately 70 million to 80 million doses, which we believe will be fully capable of supporting our commercialization plans for our near-commercial candidates as well as supporting manufacturing of our clinical trial materials in the foreseeable future. We have significant know-how for the key steps of the complex vaccine manufacturing processes.

### OUR VACCINE PIPELINE

Our Core Products, for purposes of this Prospectus, consist of two vaccine candidates, namely, our MCV4 candidate and MCV2 candidate. These two Core Products and six other vaccine candidates, namely, our DTcP Infant candidate, DTcP Booster candidate, Tdcp Adolescent and Adult candidate, TB Booster candidate, PBPV candidate and PCV13i candidate, are the key products in our vaccine pipeline. The following table summarizes our vaccine pipeline:

VACCINE PIPELINE	EXPECTED TIMETABLE	PRE-CLINICAL	CTA-ready	CTA-filed	Phase I	Phase II	Phase III	NDA
Ad5-EBOV <sup>(1)</sup>	Approved <sup>(1)</sup>							
MCV4 <sup>*(2)</sup>	Completed phase III clinical trial and NDA-ready, and expect to file NDA in 2019							
MCV2 <sup>*(2)</sup>	Expect to receive NDA approval in 2019							
DTcP Infant	Complete all clinical trials in 2020							
DTcP Booster	Complete all clinical trials in 2020							
Tdcp Adolescent and Adult <sup>(3)</sup>	Initiate phase I in 2019							
TB Booster <sup>(4)</sup>	Complete phase Ib by the end of 2019							
PBPV	Initiate phase I in 2019							
PCV13i <sup>(5)</sup>	Initiate phase I in 2019							
CSB016 – Shingles	Pending further studies							
CSB014 – Combination Vaccine	Pending further studies							
CSB015 – Meningitis	Pending further studies							
CSB017 – Polio	Pending further studies							
CSB012 – Adenovirus	Pending further studies							
CSB013 – ZIKA	Pending further studies							

Globally innovative

Potential global best-in-class

Potential first-in-class in China

Potential best-in-class in China

\* denotes a Core Product.

- (1) Ad5-EBOV received NDA approval in China in October 2017 only for emergency use and national stockpile.
- (2) We received umbrella CTA approvals for our MCV4 and MCV2 candidates and did not conduct phase II clinical trials for these candidates based on communications with the CFDA.
- (3) We plan to initially file a CTA for our Tdcp Adolescent and Adult candidate in the EU.
- (4) The phase I clinical trials of our TB Booster candidate are being conducted in Canada.
- (5) We filed the CTA for our PCV13i candidate in December 2018. Under current PRC laws and regulations, we may proceed with clinical trials if we do not receive any negative feedback from the Center for Drug Evaluation to our CTA within 60 days of accepting our application.

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## SUMMARY

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To date, we have not commercialized any products, and we cannot guarantee that we will be able to successfully develop and commercialize our vaccine candidates. In addition, umbrella CTA approvals may expose us to unpredictability and risk in obtaining NDA approvals as no formal NMPA assurance is required to advance to the next phase of clinical trials in such cases. We develop and maintain a number of technologies and processes as trade secrets and proprietary know-how, and may not seek patent protection for such technologies and processes to maintain our competitive position for our products, which subjects us to risks. See “Risk Factors” for details of the relevant risks.

Except for our TB Booster candidate and Ad5-EBOV, all of our vaccine candidates are developed through our in-house research and development activities. Our TB Booster candidate was in-licensed from McMaster University under a world-wide exclusive license. See “Business – Our Licensing Arrangements and Collaboration – Licensing Agreements Relating to Our Key Products – Exclusive License Agreement with McMaster University.” Ad5-EBOV, which is not one of our key products, was jointly developed by Institute of Biotechnology of Academy of Military Medical Sciences (“BAMMS”), and us under our research and collaboration arrangement. See “Business – Our Licensing Arrangements and Collaboration – Collaboration Arrangements Relating to Our Non-Key Products – Research Collaboration with the Institute of Biotechnology of Academy of Military Medical Sciences.”

### Near-commercial Candidates

- *Meningococcal conjugate vaccine (MCV) portfolio.* Our MCV candidates target meningococcal meningitis, a serious infection of the meninges. We are concurrently developing two near-commercial MCV candidates, an NDA-ready quadra-valent MCV (MCV4) and an NDA-filed bi-valent MCV (MCV2), which together cover different segments of the market. We filed the NDA for our MCV2 candidate in January 2019, and expect to file the NDA for our MCV4 candidate by the end of 2019.
  - *MCV4 candidate.* Our MCV4 candidate is a potential first-in-class vaccine in China. Currently, meningococcal polysaccharide vaccines (MPSVs) are the primary meningococcal vaccines used in China. However, MPSV4 products have a limited age indication as they cannot induce immune responses in children younger than 2 years old, which is an important fact because the incidence of meningococcal disease is highest in infants below 12 months old. Developed countries have replaced MPSV products with MCV4 products. As of the Latest Practicable Date, there were no approved MCV4 products in China. Our MCV4 candidate, for which we have completed phase III clinical trial, is a potential first-in-class vaccine in China. Compared with current primary MCV2 products approved in the PRC, our MCV4 candidate has demonstrated in phase III clinical trial, (i) a superior safety profile in the age group of 3 months, which is critical as young infants are more sensitive to safety concerns compared to older age groups, (ii) superior immunogenicity in terms of GMT level elicited by certain antigens in the age groups of 3 months

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## SUMMARY

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and 6 to 23 months, and (iii) superior immunogenicity in terms of GMT level elicited by all antigens in the age group of 2 to 6 years old. For details, see “Business – Our Vaccine Pipeline – MCV Candidates – Near-commercial Vaccine Candidates – MCV4.”

- *MCV2 candidate.* Our MCV2 candidate is a potential best-in-class MCV2 vaccine in China. There are three approved MCV2 products in China’s private vaccine market. Compared with the primary MCV2 products currently approved in China, our MCV2 candidate has demonstrated a superior safety profile in the age group of 3 months and superior immunogenicity in terms of GMT level elicited by the serogroup A antigen in the age groups of 6 to 23 months in our phase III clinical trial. For details, see “Business – Our Vaccine Pipeline – MCV Candidates – Near-commercial Vaccine Candidates – MCV2.”
- *Ad5-EBOV.* Our Ad5-EBOV is the first approved Ebola virus vaccine in China for emergency use and national stockpile. The development and approval of Ad5-EBOV demonstrates our capabilities to efficiently advance a vaccine candidate from R&D stage to an approved product using our platform technology and to manufacture safe and effective vaccine products. As compared to competing products from multinational companies, our Ad5-EBOV has shown a better stability profile and does not require ultra-low temperature storage conditions. Our Ad5-EBOV is currently for national stockpile and has potential for international stockpile opportunities. We currently do not expect Ad5-EBOV to contribute significantly to our business commercially in the future, primarily because, according to the CIC Report, the global stockpile and emergency use market for Ad5-EBOV is limited and steady at RMB200 million per year for the next decade and the potential traveler market size is expected to be less than RMB300 million by 2030.

### Clinical Trial-stage or CTA-stage Candidates

- *DTcP vaccine portfolio.* Our DTcP vaccine candidates target diphtheria, tetanus and pertussis (DTP), which are serious diseases caused by bacteria. There are two types of DTP vaccines in China, namely, co-purified DTaP vaccines and DTcP vaccines. Substantially all of the DTP vaccine products currently available in China are co-purified DTaP vaccines, whereas DTcP vaccines are the dominant DTP vaccines in most developed countries. The manufacturing process of co-purified DTaP vaccines involves co-purification of pertussis antigens, which results in the quantities of each pertussis antigen varying from batch to batch. In contrast, each pertussis antigen of DTcP vaccines is purified individually and subsequently combined in a defined ratio, hence ensuring a fixed and consistent composition. Compared with DTcP vaccines, co-purified DTaP vaccines only protect infants below 2 years old and cannot be effectively used as a booster vaccine after primary vaccination to provide long-lasting immunity. The re-emergence of pertussis disease in recent years in China also demands better vaccines. To address this market potential, we are developing a portfolio of these DTcP vaccine candidates:

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## SUMMARY

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- *DTcP Infant candidate.* We are developing a potential China best-in-class DTcP vaccine for infants. As compared with co-purified DTaP vaccines, our DTcP Infant candidate demonstrates fewer side effects and conveys better and more consistent immunogenicity as demonstrated by the higher GMT level of antibodies against pertussis elicited by our DTcP Infant candidate in pre-clinical studies and due to our advanced manufacturing process technologies. Pentaxim, which is the only vaccine in China with a DTcP component, does not have the PRN component pertussis antigen that our DTcP Infant candidate has. As compared with Pentaxim, our DTcP Infant candidate demonstrated better immunogenicity against PRN and comparable immunogenicity against PHA, PT, DT and TT in pre-clinical studies, indicating overall better protection for preventing pertussis and comparable protection against diphtheria and tetanus. For details, see “Business – Our Vaccine Pipeline – DTcP Vaccine Candidates – DTcP Infant Candidate – Clinical Trial Stage.” Our DTcP Infant candidate received CTA approval in 2018. We have commenced a phase I clinical trial in China and expect to conduct further clinical trials in China. Considering that we have obtained umbrella CTA approval for this candidate and based on our experience with the clinical trials for our MCV candidates, which also received umbrella CTA approvals, we expect to complete all of the clinical trials for our DTcP Infant candidate by 2020.
- *DTcP Booster candidate.* We are developing a potential China first-in-class DTcP booster vaccine. There are no DTP booster vaccines for children in China that protect against pertussis after primary vaccination of co-purified DTaP vaccines. We are one of the only two companies developing a DTcP booster vaccine candidate in China. Our DTcP booster candidate received CTA approval in 2018. We have commenced a phase I clinical trial in China and expect to conduct further clinical trials in China. Considering that we have obtained umbrella CTA approval for this candidate and based on our experience with the clinical trials for our MCV candidates, which also received umbrella CTA approvals, we expect to complete all of the clinical trials for our DTcP Booster candidate by 2020.
- *Tdcp Adolescent and Adult candidate.* We are developing a Tdcp Adolescent and Adult candidate, which is a potential global best-in-class vaccine with a better formulation and immunogenicity compared to world-class vaccines such as Boostrix and Adacel. Compared with Boostrix, our Tdcp Adolescent and Adult candidate contains two additional component pertussis antigens, FIM II and FIM III, which have been shown to play an important role in bacteria attachment and therefore the addition of such antigens potentially translates to better protection, according to published studies. Compared with Adacel, we have increased the antigen amounts of DT, PT and FHA, which translates to a stronger immune response. For details, see “Business – Our Vaccine Pipeline – DTcP Vaccine Candidates – Tdcp Adolescent and Adult – CTA-ready.” We expect to file a CTA for our Tdcp Adolescent and Adult candidate in EU and commence a phase I clinical trial in the EU in 2019. We plan to file a CTA in China by the end of 2020.



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## SUMMARY

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- *Pneumococcal vaccine candidates.* We are developing two potential blockbuster vaccines preventing pneumococcal diseases.
  - *PBPV candidate.* PBPV is a potential globally innovative protein-based pneumococcal vaccine. PCV 13 products, such as Prevnar 13, are the current world-class standard for pneumococcal vaccines. However, PCV13 products are serotype-specific, and therefore are effective against only 13 out of 90 plus serotypes of *Streptococcus pneumoniae*. Conjugation of additional serotypes is technically challenging, which limits the ability of these vaccines to cover additional serotypes. Studies have shown that there is an increase in incidence of pneumococcal diseases caused by serotypes not covered by current PCV13 products, which indicates that the protection offered by PCV13 products is becoming increasingly insufficient. Our PBPV candidate is serotype-independent and has the potential to cover substantially all pneumococcal serotypes, thereby providing greater protection in preventing pneumococcal diseases. The CTA for our PBPV candidate was approved in October 2018.
  - *PCV13i candidate.* We are also developing a potential China best-in-class PCV13. Currently, PPV23 products are the primary pneumococcal vaccines in China, in contrast with most developed countries where PCV13 products are predominantly used. Compared with Prevnar 13 and other PCV13 candidates, our PCV13i incorporates key improvements in conjugate design and manufacturing processes. As a result, our PCV13i has shown better immunogenicity than Prevnar 13 in pre-clinical studies with four serotypes eliciting higher GMT levels and the other nine serotypes eliciting comparable GMT levels. For details, see “Business – Our Vaccine Pipeline – Pneumococcal Vaccine Candidates – PCV13i – CTA-filed.” We have filed the CTA for our PCV13i candidate in December 2018.
- *Tuberculosis booster vaccine candidate.* We are developing a globally innovative TB Booster candidate for the BCG-vaccinated population. Currently, BCG is the only available TB vaccine in world and all newborns in the PRC are required to receive the BCG vaccination. However, the efficacy of BCG declines after 10 to 20 years from primary vaccination and no effective BCG booster vaccine is available. Our TB Booster candidate would be indicated for the 4 to 18 year-old age group in China, which had a total population of 290.0 million in 2017. The phase Ib clinical trial of our TB Booster candidate was commenced in 2018. Based on the study design of the clinical trial and the enrollment status of study subjects, this clinical trial is expected to be completed in Canada by the end of 2019.

In addition, we have six pre-clinical vaccine candidates, including one combination vaccine candidate and five disease-specific vaccine candidates targeting shingles, meningitis, polio, adenovirus and Zika.

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## SUMMARY

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### VACCINE MECHANISM OF ACTION

Vaccines prevent people from getting diseases by stimulating the human immune system to fight diseases. The human immune system contains two major subsystems, namely, innate immune system and adaptive immune system. When confronted with a new pathogenic organism, the immune system first seeks to eliminate the pathogen through an initial response via the innate immune system. The immune system then generates immunological memory, or adaptive immunity, through the adaptive immune system to remember and recognize the invasive pathogen to combat it in the future. A vaccine introduces a pathogen or a specific portion of a pathogen to the adaptive immune system in a controlled manner to invoke immunity against the specific pathogen that the vaccine is designed to address.

### MARKET OPPORTUNITIES

China's vaccine market is vast and underserved. In 2017, China's vaccine market was RMB25.3 billion (US\$3.8 billion) in terms of sales revenue, or RMB19.2 (US\$2.9) per person, as compared to the U.S. vaccine market of US\$16.0 billion, or US\$49.3 per person. China's vaccine market historically has grown relatively slowly, but is expected to grow more rapidly driven by the continuing growth of the private vaccine market. The growth of the private vaccine market is expected to be driven by factors such as (i) increasing availability of high-quality vaccines; (ii) untapped adult market with increasing aging population; (iii) increasing awareness of the benefits of vaccination; (iv) increasing affordability of vaccines in the private market; and (v) increasing government expenditure for and policy support of preventive healthcare.

### RESEARCH AND DEVELOPMENT

Leveraging the robust experience and technological know-how of our Founders, we have developed four platform technologies that cover key advanced technologies in vaccine development. These platform technologies lay the foundation for, and demonstrate our capabilities in, the research and development of vaccines. Moreover, our platform technologies complement each other and produce a synergistic effect for our research and development efforts, enabling us to develop vaccines in a cost effective manner and build a comprehensive portfolio of vaccine products.

- *Adenovirus-based viral vector vaccine technology.* We have developed technology to utilize adenoviruses as viral vectors to deliver vaccine antigens to the human cell. This technology enabled us to translate our globally innovative Ebola virus vaccine from a concept to an approved product in only three years. Our adenovirus-based vector technology is also applied to our TB Booster and other vaccine candidates.

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## SUMMARY

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- *Conjugation technology.* Our conjugation technology and conjugation process know-how enable us to manufacture a wide range of conjugate vaccines. Conjugation enhances immunogenicity of a vaccine by linking a polysaccharide to a carrier protein. In addition to commonly used DT and TT carrier proteins, we have a number of carrier proteins including CRM197, which is produced by our proprietary high-yield bacterial strain and used in our MCV candidates. Our wide range of carrier proteins allows us to develop better multi-valent conjugate and combination vaccines, which distinguishes us from many of our competitors in China. In particular, our potential China best-in-class PCV13i employs a combination of different carrier proteins and we have filed the CTA in December 2018.
- *Protein structure design and recombinant technology.* The function of a protein is highly dependent on the protein's structure and fold. We have developed technology to design protein structures that are optimal for use in a vaccine. For example, we have used protein structure design technology to design pneumococcal protein antigens. Unlike vaccines that were historically developed based on attenuated or inactivated versions of live viruses, recombinant technology enables us to express the DNA of an antigen that elicits an immune response in a cellular expression system and purify such antigens for vaccine production. We have developed novel recombinant strains to produce a new generation pertussis vaccine. We also developed a proprietary cell line to be used for viral vector production.
- *Formulation technology.* Vaccines are complex substances that require a deep understanding of their formulations to ensure their safety, efficacy and stability. Our culture media formulations are free from animal components, and our final product formulations are free from undesired phenol and preservatives. Such characteristics ensure consistent product quality and reduce potential risks of side effects.

## MANUFACTURING AND QUALITY ASSURANCE

Vaccine manufacturing is a complex process which may take 6 to 12 months. The quality and safety of a vaccine is highly dependent on its manufacturing processes. As a result, vaccine companies in China are required to manufacture vaccines in-house and may not outsource manufacturing to CMOs. Manufacturing vaccines is a biological process where in-depth expertise is required and process know-how is highly valuable to vaccine quality and cost control. Accordingly, we design our manufacturing processes for our vaccine candidates when they are still in pre-clinical stage in order to ensure that they can be successfully manufactured at commercial scale. We believe our accumulated manufacturing know-how enables us to achieve high-yield production, which would in turn lower our manufacturing cost. Our manufacturing team is led by our senior leaders who have hands-on experience, scientific knowledge and in-depth understanding of international manufacturing standards and requirements.

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## SUMMARY

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In addition, we own and operate a commercial-scale manufacturing facility in Tianjin with a gross floor area of approximately 37,000 m<sup>2</sup> that is designed, constructed and operated to meet international standards. The facility has an annual bulk production capacity of approximately 70 million to 80 million doses, which is higher than the average production capacity at 30 million to 50 million doses of the top five largest domestic privately-owned vaccine companies in China in terms of sales revenue, according to the CIC Report. We believe our current annual bulk production capacity will be fully capable of supporting our commercialization plans for our near-commercial candidates as well as supporting manufacturing of clinical trial materials in the foreseeable future. Furthermore, we have applied a comprehensive quality management from vaccine research, development and manufacturing. Our R&D facilities are designed according to global standards. Our GMP pilot plants in our research and development center have passed EMA's QP inspection.

### RISK FACTORS

We are a biotechnology company seeking to list on the Main Board of the Stock Exchange under Chapter 18A of the Listing Rules. There are unique challenges, risks and uncertainties associated with investing in companies such as ours, including (i) we have incurred significant losses since our inception and anticipate that we will continue to incur losses for the next several years and may never achieve or maintain profitability; (ii) our financial prospects depend on the successful development and approval of our clinical-stage and pre-clinical stage vaccine pipeline; (iii) we may face substantial competition in the market for vaccines; (iv) we may be unable to obtain regulatory approval for our vaccine candidates; (v) we may not be able to be successfully prequalified by provincial CDCs of our target provinces or secure subsequent product orders; and (vi) the commercial success of any of our vaccine and vaccine candidates will depend upon its degree of market acceptance by vaccinees, national and local CDCs, KOLs and others in the vaccine or disease prevention industry. These risks are not the only significant risks that may affect the value of our Shares. See "Risk Factors" for details of risks and uncertainties related to us.

### LICENSING ARRANGEMENTS AND COLLABORATION

The following is a summary of our material licensing agreements and collaboration arrangement:

- *In-licensed tuberculosis candidate.* In July 2011, we entered into an exclusive licensing agreement with McMaster University (the "**McMaster Licensing Agreement**") under which McMaster has granted us a world-wide, exclusive license for products in the tuberculosis field (the "**Licensed Products**") using the technology related to our TB Booster candidate and its phase I clinical trial as well as relevant patent rights and technology information rights owned by McMaster University. McMaster University is entitled to receive milestone payments of up to CAD105,000, of which CAD65,000 has been paid by us as of the Latest Practicable Date. We have agreed to pay McMaster University a royalty in the low-single digits of the net sales on Licensed Products by us in any country, in which the patent rights and the technology information rights of the Ad5Ag85A Technology exist.

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## SUMMARY

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- *In-licensed viral vector production technology.* In February 2014, we entered into a non-exclusive sub-license agreement with National Research Council of Canada, or NRC (the “**License Agreement with NRC**”) under which we are granted a worldwide non-exclusive license in the field of viral vector production for any of our products resulting from using NRC Technology, know-how and other technical information related to 293SF-3F6 Cell Line Master Cell Bank (the “**NRC Technology**”). Under the License Agreement with NRC, we paid NRC a one-off license fee in the low six figures in 2014 and there are no outstanding license fees payable under this agreement.
- *Out-licensed PCV technologies.* In March 2009, November 2009, December 2011 and January 2015, we entered into a series of agreements with Sinovac with respect of PCV technologies (together, the “**Sinovac Licensing Agreement**”). Under the currently effective Sinovac Licensing Agreement, we have granted Sinovac a non-exclusive worldwide license to our PCV technology including the ones related to CRM197 carrier proteins, to develop, manufacture and commercialize PCV products. Each party has the right to use the PCV technologies to develop its own PCV products. We are entitled to receive milestone payments of up to US\$1.8 million from Sinovac, all of which have been fully paid to us before the Track Record Period. Sinovac has agreed to pay us royalties in the low-single digits of the net sales in any country or area of commercialized PCV products developed through any sub-license and collaboration development.

## COMMERCIALIZATION AND PRICING POLICY

We have begun to build our commercialization infrastructure with a primary focus in China’s private vaccine market. The primary responsibilities of the commercialization team are (i) building a nationwide team to cover approximately 30 economically-developed cities, gradually expanding to lower tier cities; (ii) establishing and supporting our sales force; and (iii) developing and undertaking commercialization initiatives. We expect CDCs to be our primary customers. We expect to expand our own commercialization team to reach approximately 100 members by the end of 2019 and approximately 370 to 380 members by the end of 2022 based on our current plans with respect to clinical trials and product commercialization. See “Business – Commercialization.”

As part of our mission, we endeavour to offer affordable vaccines. We will price our products after obtaining NDA approvals. We will determine the prices of our products based on a number of factors, including product quality, competitive market position and affordability. For details of our pricing policy, see “Business – Commercialization – Pricing Policy.”

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## SUMMARY

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### RAW MATERIALS AND SUPPLIERS

Our manufacturing activities to date have primarily been limited to those for product registration purposes. The primary raw materials used to manufacture our vaccine candidates include culture media, supplemental materials and packaging materials. We have maintained stable business relationships with a number of suppliers that can provide such raw materials with consistently high quality and in sufficient volumes. During the Track Record Period, we purchased raw materials based on the needs of our research and development and we did not experience any shortage of supply.

### COMPETITIVE STRENGTHS AND BUSINESS STRATEGY

We believe that the following strengths will help us in our future development: (i) near-commercial assets with high potential; (ii) comprehensive and robust vaccine pipeline to address the vast and underserved market; (iii) advanced vaccine R&D platform technologies; (iv) global-standard vaccine manufacturing capabilities and quality management system; and (v) world-class scientific and management team from leading global biopharmaceutical companies. See “Business – Competitive Strengths” in this Prospectus.

We intend to implement a business strategy with the following key components: (i) advance development and commercialization of near-commercial assets; (ii) rapidly advance development of our pipeline of other vaccine candidates; (iii) establish and strengthen our commercialization infrastructure; and (iv) build on our strengths through global collaborations and acquisition opportunities. See “Business – Business Strategy” in this Prospectus.

### SUMMARY OF KEY FINANCIAL INFORMATION

#### Consolidated Statements of Comprehensive Income

	For the year ended December 31,		
	2016	2017	2018
	<i>(RMB in thousands)</i>		
Operating loss	(52,686)	(63,796)	(138,578)
Loss before income tax	(49,851)	(64,450)	(138,281)
Loss for the year and total comprehensive loss	(49,851)	(64,450)	(138,281)

## SUMMARY

### Summary Financial Data from Consolidated Balance Sheets

	As of December 31,		
	2016	2017	2018
	<i>(RMB in thousands)</i>		
Non-current assets	179,368	439,446	574,871
Current assets	146,805	426,918	221,004
Current liabilities	27,356	112,927	106,685
Net current assets	119,449	313,991	114,319
Non-current liabilities	84,344	146,105	186,873

### Summary Financial Data from Consolidated Statements of Cash Flows

	For the year ended December 31,		
	2016	2017	2018
	<i>(RMB in thousands)</i>		
Operating cash flows before movements in working capital	(38,771)	(60,610)	(124,221)
Net cash used in operating activities	(34,383)	(56,301)	(123,638)
Net cash (used in)/generated from investing activities	(173,543)	(461,490)	117,625
Net cash generated from financing activities	150,815	484,372	45,055
Cash and cash equivalents at the end of the year	52,548	18,247	57,381

### Key Financial Ratios

	As of December 31,		
	2016	2017	2018
Current ratio <sup>(1)</sup>	5.37	3.78	2.07
Quick ratio <sup>(2)</sup>	5.37	3.77	1.99
Gearing ratio <sup>(3)</sup>	7.3%	12.9%	15.6%

(1) Current ratio represents current assets divided by current liabilities as of the same date.

(2) Quick ratio represents current assets less inventories and divided by current liabilities as of the same date.

(3) Gearing ratio represents net debt divided by total capital and multiplied by 100%. Net debt is calculated as total borrowings less cash and cash equivalents. Total capital is calculated as equity as shown in the consolidated balance sheet plus net debt.



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## SUMMARY

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### Cash Operating Costs

The following table sets forth the key information relating to our cash operating costs for the periods indicated.

	For the year ended December 31,		
	2016	2017	2018
	(RMB in thousands)		
<i>Costs Relating to Research and Development and Clinical Trials:</i>			
Employee benefits expenses	22,843	30,749	57,663
Raw material and consumables used	8,680	12,709	22,940
Depreciation and amortization	5,667	7,644	10,693
Clinical trial expenditure	–	21,310	10,275
Utilities, office expenses and operating lease rental expenses	5,137	6,647	7,054
Testing fee	3,462	3,345	6,171
Consulting fee	275	9	1,463
Travelling and transportation expenses	1,053	1,709	1,459
Others	2,338	1,220	3,013
<b>Total:</b>	49,455	85,342	120,731
Administrative staff expenses	6,658	9,381	15,061
Direct production	–	–	–
Commercialization	–	–	–
Contingency allowance	–	–	–

Going forward, we believe our liquidity requirements will be mainly satisfied by using funds from a combination of net proceeds from the Global Offering, bank borrowings, Round 5 of our pre-IPO investments and cash generated from operations. Our funds available for use amounted to RMB150.2 million as of February 28, 2019. Taking these into account, our Directors believe that we have sufficient working capital to cover at least 125% of our costs, including general, administrative and operating costs as well as research and development costs, for at least 12 months from the date of publication of this Prospectus.

### CONTROLLING SHAREHOLDERS

Immediately after the completion of the Global Offering (assuming the Over-allotment Option is not exercised), Dr. Yu, Dr. Zhu, Dr. Qiu and Dr. Mao, through the Concert Party Agreement, will be collectively interested in approximately 31.71% of the total issued share capital of our Company. Accordingly, Dr. Yu, Dr. Zhu, Dr. Qiu and Dr. Mao will be our Controlling Shareholders upon Listing as defined under the Listing Rules. See “Relationship with Controlling Shareholders” in this Prospectus.

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## SUMMARY

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### PRE-IPO INVESTMENTS

We received five rounds of pre-IPO investments since our establishment. Our major Pre-IPO Investors include well-recognized healthcare investors such as Lilly Asia Ventures and Qiming Venture Partners, and China's leading institutional investors including SDIC Fund Management Company Ltd. For details of our pre-IPO investments, please see the section headed "History and Development – Pre-IPO Investments."

### RECENT DEVELOPMENTS AND NO MATERIAL ADVERSE CHANGE

As of the Latest Practicable Date, no material adverse changes have occurred with respect to the regulatory approvals we have received in relation to our vaccine candidates. Our Directors confirm that there has been no material adverse change in our financial, operational or trading positions or prospects since December 31, 2018, being the date of our consolidated financial statements as set out in "Appendix I – Accountant's Report" of this Prospectus, and up to the date of this Prospectus.

As we further our research and development programs for our product pipeline in 2018, we expect to incur increasing research and development costs, which may impact our results of operations for the year ending December 31, 2019. We expect to continue to incur significant expenses and operating losses in the future as we further the clinical development and/or pre-clinical studies of our vaccine pipeline, expand our team and grow our business. We expect that our financial performance will fluctuate from period to period due to the status of the development of our vaccine candidates, the regulatory approval process and commercialization of our vaccine candidates.

### GLOBAL OFFERING STATISTICS

The statistics in the following table are based on the assumptions that: (i) the Global Offering is completed and 57,248,600 H Shares are issued and sold in the Global Offering; (ii) the Over-allotment Option is not exercised; and (iii) 218,199,499 Shares are issued and outstanding upon completion of the Global Offering:

	Based on an Offer price of HK\$21.00 per Share	Based on an Offer price of HK\$22.00 per Share
Market capitalization of our Shares <sup>(1)</sup>	HK\$4,582.2 million	HK\$4,800.4 million
Market capitalization of our H Shares <sup>(2)</sup>	HK\$2,692.6 million	HK\$2,820.9 million
Unaudited pro forma adjusted net tangible asset value per Share <sup>(3)</sup>	HK\$7.62	HK\$7.88

(1) The calculation of market capitalization is based on 218,199,499 Shares expected to be in issue immediately upon completion of the Global Offering.

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## SUMMARY

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- (2) The calculation of market capitalization is based on the 128,220,500 H Shares, comprising 57,248,600 H Shares to be issued under the Global Offering and 70,971,900 H Shares to be converted from Unlisted Foreign Shares, expected to be in issue immediately upon completion of the Global Offering.
- (3) The unaudited pro forma adjusted net tangible asset per Share is calculated after making adjustments referred to in “Appendix II – Unaudited Pro Forma Financial Information.”

### USE OF PROCEEDS

We estimate that we will receive net proceeds from the Global Offering of approximately HK\$1,123.5 million assuming an Offer Price of HK\$21.50 per Share, being the mid-point of the indicative Offer Price range stated in this Prospectus.

We currently intend to apply these net proceeds for the following purposes: (i) approximately 80%, or HK\$898.7 million, will be used for the research and development and commercialization of our Core Products, as well as other key products in our product pipeline; (ii) approximately 10%, or HK\$112.4 million, will be used for the continued research and development of our pre-clinical vaccine candidates; and (iii) approximately 10%, or HK\$112.4 million, will be used for working capital and other general corporate purposes.

### DIVIDEND

No dividend (nil) has been paid or declared by the Company during the Track Record Period. The determination of whether to pay a dividend and in which amount is based on factors the Board may deem relevant. Any dividend distribution will also be subject to the approval of the Shareholders in the Shareholder’s meeting. Under the PRC law and the Articles of Association, the general reserve requires annual appropriations of 10% of after-tax profits at each year-end until the balance reaches 50% of the relevant PRC entity’s registered capital. We may pay dividends out of our after-tax profits after having made the recovery of accumulated losses.

### LISTING EXPENSES

Listing expenses to be borne by us are estimated to be approximately RMB91.5 million (equivalent to approximately HK\$107.3 million) (including underwriting commission). For the year ended December 31, 2018, approximately RMB16.4 million (equivalent to approximately HK\$19.2 million) was charged to our consolidated statements of comprehensive income as administrative expenses. For the year ending December 31, 2019, approximately RMB19.3 million (equivalent to approximately HK\$22.6 million in total) is expected to be charged to our consolidated statements of comprehensive income as administrative expenses, and approximately RMB55.8 million (equivalent to approximately HK\$65.5 million) is expected to be accounted for as a deduction from equity upon the Listing.

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## DEFINITIONS

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*In this Prospectus, unless the context otherwise requires, the following terms shall have the meanings set out below. Certain other terms are explained in the section headed “Glossary of Technical Terms” in this Prospectus.*

“Application Form(s)”	<b>WHITE</b> Application Form(s), <b>YELLOW</b> Application Form(s) or <b>GREEN</b> Applications Form(s), or where the context so requires, any of them that is used in connection with the Hong Kong Public Offering;
“Articles of Association” or “Articles”	the articles of association of the Company adopted on June 22, 2018, which will become effective upon the Listing Date, as amended from time to time, a summary of which is set out in Appendix VI to this Prospectus;
“associates”	has the meaning ascribed to it under the Listing Rules;
“AstraZeneca”	AstraZeneca plc, a British multi-national pharmaceutical and biopharmaceutical company;
“Beijing Zhifei Lvzhu”	Beijing Zhifei Lvzhu Biopharmaceutical Co., Ltd. (北京智飛綠竹生物製藥有限公司), a limited liability company incorporated in the PRC on October 8, 2003;
“Board” or “Board of Directors”	the board of Directors of our Company;
“Board of Supervisors”	the board of Supervisors of our Company;
“Business Day” or “business day”	any day (other than a Saturday, Sunday or public holiday in Hong Kong) on which banks in Hong Kong are generally open for normal banking business;
“CAD”	Canadian dollars;
“CAGR”	compound annual growth rate;
“CCASS”	the Central Clearing and Settlement System established and operated by HKSCC;
“CCASS Clearing Participant”	a person admitted to participate in CCASS as a direct participant or a general clearing participant;
“CCASS Custodian Participant”	a person admitted to participate in CCASS as a custodian participant;

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## DEFINITIONS

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“CCASS Investor Participant”	a person admitted to participate in CCASS as an investor participant who may be an individual, joint individuals or a corporation;
“CCASS Operation Procedures”	the operational procedures of HKSCC in relation to CCASS, containing the practices, procedures and administrative requirements relating to the operation and functions of CCASS, as from time to time in force;
“CCASS Participant”	a CCASS Clearing Participant, a CCASS Custodian Participant or a CCASS Investor Participant;
“CFDA”	China Food and Drug Administration (國家食品藥品監督管理總局), the PRC governmental authority responsible for regulating food and drugs before the Institutional Reform Plan in 2018;
“China” or the “PRC”	the People’s Republic of China, but for the purpose of this Prospectus and for geographical reference only and except where the context requires, references in this Prospectus to “China” and the “PRC” do not include Hong Kong, the Macau Special Administrative Region of the PRC and Taiwan;
“CIC”	China Insights Consultancy Limited;
“CIC Report”	the market research report prepared by CIC and commissioned by us;
“close associate(s)”	has the meaning ascribed to it under the Listing Rules;
“Companies Ordinance”	the Companies Ordinance (Chapter 622 of the laws of Hong Kong), as amended, supplemented or otherwise modified from time to time;
“Companies (Winding Up and Miscellaneous Provisions) Ordinance”	the Companies (Winding Up and Miscellaneous Provisions) Ordinance (Chapter 32 of the laws of Hong Kong), as amended, supplemented or otherwise modified from time to time;

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## DEFINITIONS

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“Company” or “CanSinoBio”	CanSino Biologics Inc. (康希諾生物股份公司), a joint stock company incorporated in the PRC with limited liability on February 13, 2017, or, where the context requires (as the case may be), its predecessor, Tianjin CanSino Biotechnology Inc. (天津康希諾生物技術有限公司), a company incorporated in the PRC with limited liability on January 13, 2009;
“Concert Party Agreement”	the agreement entered into between Dr. Yu, Dr. Zhu, Dr. Qiu and Dr. Mao on February 13, 2017 pursuant to which Dr. Yu, Dr. Zhu, Dr. Qiu and Dr. Mao have undertaken to, among other things, vote unanimously for any resolutions proposed at any Shareholders’ meeting of our Company;
“Connected Person(s)” or “connected person(s)”	has the meaning ascribed to it under the Listing Rules;
“Controlling Shareholder(s)”	has the meaning ascribed to it under the Listing Rules and, unless the context requires otherwise, refers to Dr. Yu, Dr. Zhu, Dr. Qiu and Dr. Mao;
“core connected person(s)”	has the meaning ascribed to it under the Listing Rules;
“Core Product(s)”	has the meaning ascribed to it in Chapter 18A of the Listing Rules; for purposes of this Prospectus, our Core Products include our MCV2 candidate and MCV4 candidate;
“CSDCC”	China Securities Depository and Clearing Corporation Limited (中國證券登記結算有限責任公司);
“CSRC”	China Securities Regulatory Commission (中國證券監督管理委員會), a regulatory body responsible for the supervision and regulation of the PRC national securities markets;
“Director(s)” or “our Directors”	the director(s) of our Company;
“Domestic Shares”	ordinary shares in the share capital of our Company, with a nominal value of RMB1.00 each, which are subscribed for and paid up in Renminbi by domestic investors;

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## DEFINITIONS

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“Dr. Chao”	Dr. Shou Bai Chao, executive Director, chief operating officer and deputy general manager of the Company and spouse of Dr. Mao;
“Dr. Mao”	Dr. Helen Huihua Mao, senior vice president and deputy general manager of the Company, our co-Founder and Controlling Shareholder and spouse of Dr. Chao;
“Dr. Qiu”	Dr. Dongxu Qiu, executive Director, senior vice president and deputy general manager of the Company, our co-Founder and Controlling Shareholder;
“Dr. Yu”	Dr. Xuefeng Yu, chairman of the Board, executive Director, chief executive officer and general manager of the Company, our co-Founder and Controlling Shareholder;
“Dr. Zhu”	Dr. Tao Zhu, executive Director, chief scientific officer and deputy general manager of the Company, our co-Founder and Controlling Shareholder;
“Duff & Phelps”	D&P China (HK) Limited, the independent property valuer commissioned by us to conduct property valuation on the properties of our Company;
“EIT Law”	the Enterprise Income Tax Law of the PRC (中華人民共和國企業所得稅法) enacted by the 5th meeting of the 10th Standing Committee of the NPC on March 16, 2007, as amended, supplemented or otherwise modified from time to time;
“EMA”	the European Medicines Agency, the EU agency responsible for evaluating and granting centralized approval for market authorization valid in all EU, European Economic Area states, and European Free Trade Association states;
“EU”	the European Union;
“FDA”	U.S. Food and Drug Administration, the U.S. federal agency responsible for regulating food and drugs;



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## DEFINITIONS

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“Foreign Shares”	ordinary shares in the share capital of our Company, with a nominal value of RMB1.00 each, which are subscribed for and paid up in currencies other than Renminbi by foreign investors;
“Founders”	the founders of our Company, being Dr. Yu, Dr. Zhu, Dr. Qiu and Dr. Mao, and each of them referred to as a “co-Founder”;
“GAVI”	The Global Alliance for Vaccines and Immunisation, an international organization dedicated to saving children’s lives and protecting people’s health by increasing equitable use of vaccines in lower-income countries;
“Global Offering”	the Hong Kong Public Offering and the International Offering;
“ <b>GREEN</b> Application Form(s)”	the application form(s) to be completed by the White Form eIPO Service Provider, Computershare Hong Kong Investor Services Limited;
“H Share(s)”	overseas listed shares in the share capital of our Company with a nominal value of RMB1.00 each, which are to be subscribed for and traded in HK dollars and for which an application will be made for listing and permission to trade on the Stock Exchange;
“H Share Registrar”	Computershare Hong Kong Investor Services Limited;
“HK\$,” “Hong Kong dollars,” “HK dollars” or “cents”	Hong Kong dollars and cents respectively, the lawful currency of Hong Kong;
“HKFRS,” “HKAS”	the Hong Kong Financial Reporting Standards and Hong Kong Accounting Standards (“HKAS”), which includes standards, amendments and interpretations promulgated by the Hong Kong Institute of Certified Public Accountants (HKICPA);
“HKSCC”	Hong Kong Securities Clearing Company Limited, a wholly-owned subsidiary of Hong Kong Exchanges and Clearing Limited;
“HKSCC Nominees”	HKSCC Nominees Limited, a wholly-owned subsidiary of HKSCC;

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## DEFINITIONS

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“Hong Kong”	the Hong Kong Special Administrative Region of the PRC;
“Hong Kong Offer Shares”	5,725,200 H Shares initially offered by our Company for subscription at the Offer Price pursuant to the Hong Kong Public Offering (subject to reallocation as described in the section headed “Structure of the Global Offering” in this Prospectus);
“Hong Kong Public Offering”	the offer of the Hong Kong Offer Shares for subscription by the public in Hong Kong at the Offer Price on the terms and conditions described in this Prospectus and the Application Forms;
“Hong Kong Underwriters”	the underwriters of the Hong Kong Public Offering listed in the section headed “Underwriting – Hong Kong Underwriters” in this Prospectus;
“Hong Kong Underwriting Agreement”	the underwriting agreement dated on or about March 15, 2019 relating to the Hong Kong Public Offering entered into among the Company, the Controlling Shareholders, Morgan Stanley Asia Limited, CLSA Capital Markets Limited, CLSA Limited and the Hong Kong Underwriters as further described in the section headed “Underwriting” in this Prospectus;
“Independent Third Party(ies)”	an individual or a company which, to the best of our Directors’ knowledge, information and belief, having made all reasonable enquiries, is not a connected person of the Company within the meaning of the Listing Rules;
“International Offer Shares”	51,523,400 H Shares initially offered by our Company for subscription at the Offer Price pursuant to the International Offering together with, where relevant, any additional H Shares which may be issued by our Company pursuant to the exercise of the Over-allotment Option (subject to reallocation as described in the section headed “Structure of the Global Offering” in this Prospectus);

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## DEFINITIONS

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“International Offering”	the offer of the International Offer Shares by the International Underwriters at the Offer Price outside the United States in offshore transactions in accordance with Regulation S and in the United States to QIBs only in reliance on Rule 144A or any other available exemption from registration under the U.S. Securities Act, as further described in the section headed “Structure of the Global Offering” in this Prospectus;
“International Underwriters”	the group of international underwriters, that is expected to enter into the International Underwriting Agreement relating to the International Offering;
“International Underwriting Agreement”	the underwriting agreement expected to be entered into on or around the Price Determination Date by, among others, the Company, the Controlling Shareholders, the Joint Representatives and the International Underwriters in respect of the International Offering, as further described in the section headed “Underwriting” in this Prospectus;
“Johnson & Johnson”	Johnson Holdings LLC, an American multi-national medical devices, pharmaceutical and consumer packaged goods manufacturing company;
“Joint Bookrunners”	Morgan Stanley Asia Limited (in relation to the Hong Kong Public Offering), Morgan Stanley & Co. International plc (in relation to the International Offering), CLSA Limited, China International Capital Corporation Hong Kong Securities Limited, ICBC International Capital Limited, and CMB International Capital Limited;
“Joint Global Coordinators”	Morgan Stanley Asia Limited, CLSA Limited, and China International Capital Corporation Hong Kong Securities Limited;

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## DEFINITIONS

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“Joint Lead Managers”	Morgan Stanley Asia Limited (in relation to the Hong Kong Public Offering), Morgan Stanley & Co. International plc (in relation to the International Offering), CLSA Limited, China International Capital Corporation Hong Kong Securities Limited, ICBC International Securities Limited, and CMB International Capital Limited;
“Joint Representatives”	Morgan Stanley Asia Limited (in relation to the Hong Kong Public Offering only), Morgan Stanley & Co. International plc (in relation to the International Offering only) and CLSA Limited;
“Joint Sponsors”	Morgan Stanley Asia Limited and CLSA Capital Markets Limited;
“Latest Practicable Date”	March 8, 2019, being the latest practicable date for the purpose of ascertaining certain information in this Prospectus prior to its publication;
“Listing”	the listing of our H Shares on the Stock Exchange;
“Listing Committee”	the Listing Committee of the Stock Exchange;
“Listing Date”	the date expected to be on or about March 28, 2019, on which dealings in our H Shares first commence on the Stock Exchange;
“Listing Rules”	the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited, as amended, supplemented or otherwise modified from time to time;
“Main Board”	the stock exchange (excluding the option market) operated by the Stock Exchange, which is independent from and operated in parallel with the Growth Enterprise Market of the Stock Exchange;
“Mandatory Provisions”	the Mandatory Provisions for Articles of Association of Companies to be Listed Overseas (到境外上市公司章程必備條款), as promulgated by the State Council Securities Commission and the State Restructuring Commission on August 27, 1994 and became effective on the same date, as the same may be amended and supplemented or otherwise modified from time to time;
“Merck”	Merck & Company, Inc., an American multi-national pharmaceutical company;

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## DEFINITIONS

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“Minhai”	Minhai Biotechnology Co., Ltd. (北京民海生物科技有限公司), a limited liability company incorporated in the PRC on June 3, 2004;
“MOF”	the Ministry of Finance of the PRC;
“MOFCOM”	the Ministry of Commerce of the PRC (中華人民共和國商務部) or its predecessor, the Ministry of Foreign Trade and Economic Cooperation of the PRC (中華人民共和國對外貿易經濟合作部);
“NDRC”	the National Development and Reform Commission of the PRC (中華人民共和國國家發展和改革委員會);
“NHFPC”	the National Health and Family Planning Commission;
“NIFDC”	the National Institutes for Food and Drug Control (中國食品藥品檢定研究院);
“NMPA”	National Medical Products Administration, the institution that performs the functions of CFDA instead according to the Institutional Reform Plan of the State Council;
“NPC”	the National People’s Congress of the PRC;
“Offer Price”	the final price per Offer Share in Hong Kong dollars (exclusive of brokerage fee of 1%, SFC transaction levy of 0.0027% and Stock Exchange trading fee of 0.005%) of not more than HK\$22.00 and expected to be not less than HK\$21.00, at which Hong Kong Offer Shares are to be subscribed for, to be determined in the manner further described in the section headed “Structure of the Global Offering – Pricing and Allocation” in this Prospectus;
“Offer Share(s)”	the Hong Kong Offer Shares and the International Offer Shares, together with, where relevant, any additional H Shares which may be issued by our Company pursuant to the exercise of the Over-allotment Option;

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## DEFINITIONS

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“Over-allotment Option”	the option expected to be granted by our Company to the International Underwriters, exercisable by the Joint Representatives (on behalf of the International Underwriters) pursuant to the International Underwriting Agreement, pursuant to which our Company may be required to allot and issue up to an aggregate of 4,450,400 additional H Shares, representing 7.8% of the Offer Shares initially being offered under the Global Offering, at the Offer Price to cover over-allocations in the International Offering, if any, further details of which are described in the section headed “Structure of the Global Offering” in this Prospectus;
“PBOC”	the People’s Bank of China (中國人民銀行), the central bank of the PRC;
“PRC Company Law”	the Company Law of the PRC (中華人民共和國公司法), as amended and adopted by the Standing Committee of the Tenth National People’s Congress on October 27, 2005 and effective on January 1, 2006, as amended, supplemented or otherwise modified from time to time;
“PRC Legal Adviser”	Tian Yuan Law Firm, our legal adviser as to PRC laws;
“PRC Securities Law”	the Securities Law of the PRC (中華人民共和國證券法), as enacted by the 6th meeting of the 9th Standing Committee of the NPC on December 29, 1998 and became effective on July 1, 1999, as amended, supplemented or otherwise modified from time to time;

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## DEFINITIONS

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“Pre-IPO Investor(s)”

Suzhou Huyanglin Venture Capital Center (Limited Partnership) (蘇州胡楊林創業投資中心(有限合夥)), Shanghai Nuoqianjin Venture Capital Investment Center (Limited Partnership) (上海諾千金創業投資中心(有限合夥)), LAV Spring (Hong Kong) Co., Limited, Shanghai Li'an Venture Capital Investment Center (Limited Partnership) (上海禮安創業投資中心(有限合夥)), Shanghai Licheng Investment Development Co., Ltd. (上海勵誠投資發展有限公司), Tianjin Heyue Guyu Equity Investment Fund Partnership (Limited Partnership) (天津和悅谷雨股權投資基金合夥企業(有限合夥), QM29 Limited, Suzhou Litai Venture Capital Investment Center (Limited Partnership) (蘇州禮泰創業投資中心(有限合夥)), Lilly Asia Ventures III Investment (Hong Kong) Co., Limited, LAV Bio III Investment (Hong Kong) Co., Limited, Shanghai Huiqiu Investment Co., Ltd. (上海慧秋投資有限公司), Mr. Jianfa Liu, Jiaying Huiguang Equity Investment Fund Partnership (Limited Partnership) (嘉興慧光股權投資基金合夥企業(有限合夥)), Future Industry Investment Fund (Limited Partnership) (先進製造產業投資基金(有限合夥)), Jinshi Yikang Equity Investment (Hangzhou) Partnership (Limited Partnership) (金石翊康股權投資(杭州)合夥企業(有限合夥)), CITIC Securities Investment Co., Ltd. (中信證券投資有限公司), Suzhou Qiming Rongxin Equity Investment Partnership (Limited Partnership) (蘇州啟明融信股權投資合夥企業(有限合夥)), Suzhou Industrial Park Qiming Rongchuang Equity Investment Partnership (Limited Partnership) (蘇州工業園區啟明融創股權投資合夥企業(有限合夥)), Shenzhen Dachen Chuanglian Equity Investment Fund Partnership (Limited Partnership) (深圳市達晨創聯股權投資基金合夥企業(有限合夥)), Shanghai Gopher Yaoren Investment Center (Limited Partnership) (上海歌斐鑰韜投資中心(有限合夥)), Shanghai Gopher Hongben Investment Center (Limited Partnership) (上海歌斐鴻本投資中心(有限合夥)) and Suzhou Industrial Park Zhongxin Hengxiang Investment Center (Limited partnership) (蘇州工業園區中鑫恒祥投資中心(有限合夥));

“Price Determination Agreement”

the agreement to be entered into by the Joint Representatives (on behalf of the Underwriters) and our Company on the Price Determination Date to record and fix the Offer Price;



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## DEFINITIONS

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“Price Determination Date”	the date, expected to be on or around Friday, March 22, 2019 (Hong Kong time) on which the Offer Price is determined, or such later time as the Joint Representatives (on behalf of the Underwriters) and our Company may agree, but in any event no later than Wednesday, March 27, 2019;
“Property Valuation Report”	the text of a letter, the summary of values and valuation certificates from Duff & Phelps, as set out in Appendix III to this Prospectus;
“Prospectus”	this Prospectus being issued in connection with the Hong Kong Public Offering;
“QIBs”	a qualified institutional buyer within the meaning of Rule 144A;
“Regulation S”	Regulation S under the U.S. Securities Act;
“RMB” or “Renminbi”	Renminbi, the lawful currency of the PRC;
“Royal”	Royal (Wuxi) Bio-Pharmaceutical Co., Ltd. (羅益(無錫)生物製藥有限公司), a limited liability company incorporated in the PRC on October 11, 2002;
“Rule 144A”	Rule 144A under the U.S. Securities Act;
“SAFE”	the State Administration of Foreign Exchange of the PRC (中華人民共和國國家外匯管理局);
“SAIC”	the State Administration for Industry and Commerce of the PRC (中華人民共和國國家工商行政管理總局);
“Sanofi Pasteur”	Sanofi Pasteur Limited, the vaccine division of Sanofi S.A., a French multi-national pharmaceutical company;
“SAT”	State Administration of Taxation of the PRC (中華人民共和國國家稅務總局);
“Securities and Futures Ordinance” or “SFO”	the Securities and Futures Ordinance (Chapter 571 of the Laws of Hong Kong), as amended, supplemented or otherwise modified from time to time;
“SFC”	the Securities and Futures Commission of Hong Kong;

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## DEFINITIONS

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“Share(s)”	shares in the share capital of our Company, with a nominal value of RMB1.00 each, comprising our Domestic Shares, Unlisted Foreign Shares and our H Shares;
“Shareholders”	holders of our Shares;
“Sinovac”	Sinovac Biotech Ltd. (北京科興生物製品有限公司), a limited liability company incorporated in the PRC on April 28, 2001;
“Special Regulations”	Special Regulations of the State Council on the Overseas Offering and Listing of Shares by Joint Stock Limited Companies (國務院關於股份有限公司境外募集股份及上市的特別規定), promulgated by the State Council on December 25, 1995;
“Stabilizing Manager”	Morgan Stanley Asia Limited;
“State Council”	State Council of the PRC (中華人民共和國國務院);
“Stock Exchange”	the Stock Exchange of Hong Kong Limited;
“subsidiary(ies)”	has the meaning ascribed thereto in section 15 of the Companies Ordinance;
“substantial shareholder(s)”	has the meaning ascribed to it under the Listing Rules;
“Supervisor(s)”	supervisor(s) of our Company;
“Takeovers Code”	the Codes on Takeovers and Mergers and Share Buy-backs issued by the SFC, as amended, supplemented or otherwise modified from time to time;
“Track Record Period”	the period comprising the years ended December 31, 2016, 2017 and 2018;
“Underwriters”	the Hong Kong Underwriters and the International Underwriters;
“Underwriting Agreements”	the Hong Kong Underwriting Agreement and the International Underwriting Agreement;

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## DEFINITIONS

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“United States” or “U.S.”	the United States of America, its territories, its possessions and all areas subject to its jurisdiction;
“Unlisted Foreign Shares”	ordinary shares issued by our company with a nominal value of RMB1.00 each and are held foreign investors and are not listed on any stock exchange;
“Unlisted Shares”	ordinary shares issued by our company with a nominal value of RMB1.00 each, comprising our Domestic Shares and Unlisted Foreign Shares;
“U.S. dollars” or “US\$”	United States dollars, the lawful currency of the United States;
“U.S. Securities Act”	the United States Securities Act of 1933, as amended and supplemented or otherwise modified from time to time, and the rules and regulations promulgated thereunder;
“VAT”	Value Added Tax;
“we,” “our” or “us”	the company, and, where the context requires, Tianjin Qianyi Enterprise Management Partnership (Limited Partnership), Tianjin Qianrui Enterprise Management Partnership (Limited Partnership) and Tianjin Qianzhi Enterprise Management Partnership (Limited Partnership), our employee incentive platforms;
“ <b>WHITE</b> Application Form(s)”	the application form(s) for the Hong Kong Offer Shares for use by the public who require(s) such Hong Kong Offer Shares to be issued in the applicant’s own name;
“White Form eIPO”	the application for Hong Kong Offer Shares to be issued in the applicant’s own name, submitted online through the designated website of the White Form eIPO Service Provider, at <a href="http://www.eipo.com.hk">www.eipo.com.hk</a> ;
“White Form eIPO Service Provider”	Computershare Hong Kong Investor Services Limited;
“WHO”	the World Health Organization, a specialized agency of the United Nations concerned with international public health;

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## DEFINITIONS

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“Wyeth”	Wyeth Pharmaceuticals, Inc., an American pharmaceutical company purchased by Pfizer in 2009;
“ <b>YELLOW</b> Application Form(s)”	the application form(s) for the Hong Kong Offer Shares for use by the public who require(s) such Hong Kong Offer Shares to be deposited directly into CCASS.

Certain amounts and percentage figures included in this Prospectus have been subject to rounding adjustments. Accordingly, figures shown as totals in certain tables may not be an arithmetic aggregation of the figures preceding them.

For ease of reference, the names of the PRC laws and regulations, governmental authorities, institutions, natural persons or other entities (including certain of our subsidiaries) have been included in the Prospectus in both the Chinese and English languages and in the event of any inconsistency, the Chinese versions shall prevail. English translations of official Chinese names are for identification purpose only.

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## GLOSSARY OF TECHNICAL TERMS

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*In this Prospectus, unless the context otherwise requires, explanations and definitions of certain terms used in this Prospectus in connection with our Company and our business shall have the meanings set out below. The terms and their meanings may not correspond to standard industry meaning or usage of these terms.*

“Ad5-EBOV”	a adenovirus type 5 vector based Ebola virus disease vaccine, a vaccine jointly developed by, among others, CanSinoBio, that protects against Ebola by relying on the recombinant replication-defective human adenovirus type-5 vector to induce the immune response. It received the NDA approval in China in October 2017;
“adenovirus”	a DNA virus originally identified in human adenoid tissue, causing infections of the respiratory system, conjunctiva, and gastrointestinal tract, and including some capable of inducing malignant tumors in experimental animals;
“adjuvant”	a substance that may be added to a vaccine to enhance the body’s immune response to an antigen;
“antigen”	the substance that is capable of stimulating an immune response, specifically activating lymphocytes, which are the body’s infection-fighting white blood cells;
“BCG”	Bacillus Calmette-Guerin, a vaccine used for preventing tuberculosis;
“bridging clinical study”	an additional study executed in a new geographical region to “build a bridge” with foreign clinical data on safety, efficacy, and dose response;
“carrier protein”	Protein-based molecules to conjugate with polysaccharide capsule;
“CDC”	Centre for Disease Control and Prevention (疾病預防控制中心);
“CFU”	a colony-forming unit used to estimate the number of viable bacteria or fungal cells in a sample;

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## GLOSSARY OF TECHNICAL TERMS

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“challenge study”	intentional induction of infection by the administration of virulent organisms to healthy volunteers under carefully controlled conditions;
“combination vaccines”	vaccines that can prevent two or more contagious diseases;
“Co-purified DTaP vaccine”	diphtheria, tetanus and acellular pertussis combined vaccine, manufacturing process of which involves co-purification of pertussis antigens, which results in the quantities of each pertussis antigen varying from batch to batch;
“conjugate”	chemically link bacterial capsular polysaccharide to a protein to enhance immunogenicity;
“CRM197”	a well defined protein and non-toxic mutant of diphtheria toxin having a single amino acid substitution of glutamic acid for glycine;
“CTA”	clinical trial application, the PRC equivalent of investigational new vaccine application;
“culture media”	a solid, liquid or semi-solid designed to support the growth of microorganisms or cells;
“dendritic cells”	cells that constantly sample their surroundings for pathogens such as viruses and bacteria, detect dangers, and initiate immune responses. Immature patrolling dendritic cells (DCs) have high endocytic activity and a low T-cells activation potential. Contact with a pathogen induces maturation and the expression of certain cell-surface molecules, greatly enhancing their ability to activate T cells;
“DT”	diphtheria toxoid, a modified bacterial toxin that induces protective antitoxin antibodies of the IgG type;
“DTcP”	diphtheria, tetanus and acellular pertussis (components) combined vaccine, each pertussis antigen of DTcP vaccines is purified individually and are subsequently combined in a defined ratio, hence ensuring a fixed and consistent composition;

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## GLOSSARY OF TECHNICAL TERMS

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“DTcP Booster”	a vaccine being developed by us that addresses the weaker protection preventing pertussis after primary vaccination, designed for children (4 to 6 years old);
“DTcP Infant”	DTcP vaccine for infants (below 2 years old);
“EPI”	Expanded Programme on Immunization;
“FHA”	filamentous hemagglutinin adhesion, a large, filamentous protein that serves as a dominant attachment factor for adherence to respiratory epithelium;
“FIM”	fimbriae or pili, one of the minute filamentous appendages of certain bacteria;
“Freedom-To-Operate”	usually used to mean determining whether a particular action, such as testing or commercializing a product, can be done without infringing valid intellectual property rights of others;
“GCP”	Good Clinical Practice for Drug Trials (GCP) (《藥物臨床試驗質量管理規範》) issued by CFDA on August 6, 2003 and implemented since September 1, 2003;
“GLP”	Good Laboratory Practice, a quality management system concerned with the organizational process and the conditions under which non-clinical health and environmental safety studies are planned, performed, monitored, recorded, archived and reported;
“GMP”	Good Manufacturing Practice, guidelines and regulations from time to time issued pursuant to the PRC Drug Administration Law (《中華人民共和國藥品管理法》) as part of quality assurance which aims to minimize the risks of contamination, cross contamination, confusion and errors during the manufacture process of pharmaceutical products and to ensure that pharmaceutical products subject to these guidelines and regulations are consistently produced and controlled in conformity to quality and standards appropriate for their intended use;



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## GLOSSARY OF TECHNICAL TERMS

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“GMT”	geometric mean titer, the average antibody titer for a group of subjects calculated by multiplying all values and taking the nth root of this number, where n is the number of subjects with available data;
“Hep B”	hepatitis B vaccine, an immunization vaccine against HBV, a contagious liver disease;
“Hib”	haemophilus influenzae type B infection;
“HPV”	human papillomavirus vaccine, an immunization vaccine that prevents infection by a group of more than 150 viruses that can cause several cancers including cervical cancer, anal cancer, and oropharyngeal cancer;
“immunogenicity”	the ability of a particular substance, such as an antigen, to provoke an immune response in the body of a human and other animal;
“IPV”	inactivated polio vaccine;
“MCV”	meningococcal conjugate vaccine, used to prevent infection caused by meningococcal bacteria;
“MCV2”	Groups A and C MCV, a vaccine used for the prevention of <i>N. meningitides</i> (Lta);
“MCV4”	Groups A, C, Y and W135 MCV, a vaccine used for the prevention of <i>N. meningitides</i> (Lta);
“MMR”	measles, mumps and rubella vaccine, an immunization vaccine against measles, mumps, and rubella;
“MPSV”	meningococcal polysaccharide vaccines, used to prevent infection caused by meningococcal bacteria;
“MPSV2”	Group A and C MPSV, a vaccine used for the prevention of epidemic cerebrospinal meningitis in children aged above two years old;
“MPSV4”	Group A, C, Y and W135 MPSV, a vaccine used for the prevention of epidemic cerebrospinal meningitis in children aged above two years old;

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## GLOSSARY OF TECHNICAL TERMS

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“NDA”	new drug application;
“PBPV”	a globally innovative, serotype-independent protein-based pneumococcal vaccine being developed by us;
“PCV13”	13-Valent pneumococcal conjugate vaccine, 13-valent vaccine primarily used for the prevention of invasive pneumococcal diseases;
“PCV13i”	an improved pneumococcal conjugate vaccine being developed by us;
“pertussis”	commonly known as whooping cough, a respiratory tract infection characterized by a paroxysmal cough;
“PFU”	a plaque-forming unit, a measure of the number of particles capable of forming plaques per unit volume, such as virus particles;
“Pharmacopoeia”	a book containing directions for the identification of compound medicines, and published by the authority of a government or a medical or pharmaceutical society;
“pneumococcal disease”	an infection caused by the <i>Streptococcus pneumoniae</i> bacterium and can result in pneumonia, infection of the blood, middle-ear infection, or bacterial meningitis;
“polysaccharide”	a carbohydrate that can be decomposed by hydrolysis into two or more molecules of monosaccharides;
“PPV23”	23-valent pneumococcal polysaccharide vaccine, used for the prevention of invasive pneumococcal disease in children aged above two years of old and adults;
“PRN”	pertactin, originally known as the 69-kDa protein, is a surface-associated protein that is exported to the outer membrane, where it undergoes proteolytic cleavage;
“PT”	pertussis toxin, a protein-based AB5-type exotoxin produced by the bacterium <i>Bordetella pertussis</i> , which causes whooping cough;

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## GLOSSARY OF TECHNICAL TERMS

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“QP”	a technical term used in European Union pharmaceutical regulation (Directive 2001/83/EC for Medicinal products for human use) and typically refers to a licensed pharmacist, biologist or chemist (or a person with another permitted academic qualification) who is authorized to certify and release drug product batches in EU countries;
“recombinant”	the formation by the processes of crossing-over and independent assortment of new combinations of genes in progeny that did not occur in the parents;
“seroconversion”	the development of detectable antibodies in the blood that are directed against an infectious agent;
“serotype”	a group of organisms, microorganisms, or cells distinguished by their shared specific antigens;
“T cells”	cells that originate in the thymus, mature in the periphery, become activated in the spleen/nodes if their T-cell receptors bind to an antigen presented by an MHC molecule and they receive additional costimulation signals driving them to acquire killing (mainly CDB <sup>+</sup> T cells) or supporting (mainly CD4 <sup>+</sup> T cells) functions;
“TB”	tuberculosis, an infection caused by <i>Mycobacterium tuberculosis</i> that primarily affects the lungs;
“TB Booster”	a recombinant human type 5 adenovirus-based tuberculosis vaccine, a globally innovative TB booster vaccine for BCG-vaccinated population;
“TdcP Adolescent and Adult”	a vaccine being developed by us for adolescents and adults (above 10 years old) that protects against pertussis, containing slightly increased amount of TT antigen to DTcP vaccine candidate for infants, but reduced amounts of pertussis and DT antigens;
“TT”	tetanus toxoid, also known as lockjaw, used to prevent tetanus, which is a serious illness that causes convulsions (seizures) and severe muscle spasms that can be strong enough to cause bone fractures of the spine;
“vaccine”	a vaccine is a biological preparation that provides active acquired immunity to a particular disease;

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## GLOSSARY OF TECHNICAL TERMS

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“valent”	in the context of vaccines, the number of antigens or microorganisms that the vaccine is designed to immunize against;
“vector”	an agent (such as a plasmid or virus) that contains or carries modified genetic material (such as recombinant DNA) and can be used to introduce exogenous genes into the genome of an organism.

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## FORWARD-LOOKING STATEMENTS

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This Prospectus contains certain forward-looking statements and information relating to us and our subsidiaries that are based on the beliefs of our management as well as assumptions made by and information currently available to our management. When used in this Prospectus, the words “aim,” “anticipate,” “believe,” “could,” “estimate,” “expect,” “going forward,” “intend,” “may,” “might,” “ought to,” “plan,” “potential,” “predict,” “project,” “seek,” “should,” “will,” “would” and the negative of these words and other similar expressions, as they relate to us or our management, are intended to identify forward-looking statements. Such statements reflect the current views of our management with respect to future events, operations, liquidity and capital resources, some of which may not materialize or may change. These statements are subject to certain risks, uncertainties and assumptions, including the risk factors as described in this Prospectus. You are strongly cautioned that reliance on any forward-looking statements involves known and unknown risks and uncertainties. The risks and uncertainties facing us which could affect the accuracy of forward-looking statements include, but are not limited to, the following:

- the timing of initiation and completion, and the progress of our vaccine early stage studies and research programs;
- the timing and likelihood of regulatory filings and approvals, such as NDA and CTA;
- our ability to advance our vaccine candidates into vaccines, and the successfully completion of clinical trials;
- the approval and pricing of our vaccine candidates;
- the commercialization of our vaccine candidates;
- the market opportunities and competitive landscape of our vaccine candidates;
- the receipt and timing of any milestone payments in relation to collaboration and licensing agreements;
- estimates of our costs, expenses, future revenues, capital expenditures and our needs for additional financing;
- our ability to attract and retain senior management and key employees;
- our operations and business prospects;
- future developments, trends, conditions and competitive landscape in the industry and markets in which we operate;
- our strategies, plans, objectives and goals and our ability to successfully implement these strategies, plans, objectives and goals;

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## FORWARD-LOOKING STATEMENTS

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- our ability to continue to maintain our market position in the vaccine industry;
- our ability to identify and integrate suitable acquisition targets;
- changes to regulatory and operating conditions in the industry and markets in which we operate;
- the amount and nature of, and potential for, future development of our business;
- the actions and developments of our competitors;
- certain statements in the sections headed “Business” and “Financial Information” in this Prospectus with respect to trends in prices, operations, margins, overall market trends, and risk management; and
- other statements in this Prospectus that are not historical facts.

Subject to the requirements of applicable laws, rules and regulations, we do not have any and undertake no obligation to update or otherwise revise the forward-looking statements in this Prospectus, whether as a result of new information, future events or otherwise. As a result of these and other risks, uncertainties and assumptions, the forward-looking events and circumstances discussed in this Prospectus might not occur in the way we expect or at all. Accordingly, the forward-looking statements are not a guarantee of future performance and you should not place undue reliance on any forward-looking information. Moreover, the inclusion of forward-looking statements should not be regarded as representations by us that our plans and objectives will be achieved or realized. All forward-looking statements in this Prospectus are qualified by reference to the cautionary statements in this section.

In this Prospectus, statements of or references to our intentions or those of the Directors are made as of the date of this Prospectus. Any such information may change in light of future developments.

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## RISK FACTORS

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*You should carefully consider all of the information in this Prospectus, including the risks and uncertainties described below, before making an investment in our Shares. Our business, financial condition and results of operations could be materially and adversely affected by any of these risks and uncertainties. The trading price of our Shares could decline due to any of these risks, and you may lose all or part of your investment. Additional risks and uncertainties not presently known to us, or not expressed or implied below, or that we deem immaterial, could also harm our business, financial condition and results of operations.*

### RISKS RELATING TO OUR FINANCIAL PROSPECTS

**We have incurred significant losses since our inception and anticipate that we will continue to incur losses for the next several years and may never achieve or maintain profitability.**

We have incurred net losses of RMB49.9 million, RMB64.5 million and RMB138.3 million for the years ended December 31, 2016, 2017 and 2018, respectively. To date, we have not generated any revenue from the sale of approved vaccine products. We filed the NDA for our MCV2 candidate in January 2019, and expect to file the NDA for our MCV4 vaccine candidate in 2019. Our ability to generate significant revenue in the next several years will depend primarily on the successful regulatory approval, manufacture, marketing and commercialization of these vaccine candidates, which is subject to significant uncertainty.

We have devoted most of our financial resources to research and development, including our clinical and pre-clinical research and development activities. To date, we have financed our operations primarily through the investments from Pre-IPO Investors and bank borrowings. The amount of our future net losses will depend, in part, on the rate of our future expenditures and our ability to obtain funding through equity or debt financings, strategic collaborations or additional grants. Even if we obtain regulatory approval to market a product candidate, our future revenues will depend upon the size of any markets in which our product candidates have received approval, our ability to achieve sufficient market acceptance, secure procurement from CDCs in China and other factors.

We expect to continue to incur significant expenses and operating losses for the foreseeable future. We anticipate that our expenses will increase significantly if and as we:

- continue to advance the clinical trials and pre-clinical studies of our current vaccine pipeline;
- initiate pre-clinical, clinical or other studies for new vaccine candidates;
- manufacture material for clinical trials and for commercial sale;
- seek regulatory approvals for our vaccine candidates that successfully complete clinical trials;



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## RISK FACTORS

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- develop and expand our commercialization team to commercialize any products for which we may obtain marketing approval;
- acquire or in-license other vaccine candidates and technologies;
- make royalty, milestone or other payments under any in-license agreements;
- maintain, protect and expand our intellectual property portfolio;
- attract and retain skilled personnel; and
- create additional infrastructure to support our operations as a public company and our product development and planned future commercialization efforts.

Our ability to become and remain profitable depends on our ability to generate revenue. Even if we are able to generate revenue from the sale of these vaccines, we may not become profitable and may need to obtain additional funding to continue operations. If we fail to become profitable or are unable to sustain profitability on a continuing basis, then we may be unable to continue our operations at planned levels and be forced to reduce our operations. Our failure to become and remain profitable would decrease the value of our Company and could impair our ability to raise capital, expand our business or continue our operations. Failure to become and remain profitable may adversely affect the market price of our Shares. A decline in the value of our Company could also cause you to lose all or part of your investment.

**We may need to obtain substantial additional financing to fund our operations, and a failure to obtain necessary capital when needed would force us to delay, limit, reduce or terminate our product development or commercialization efforts.**

During the Track Record Period, we primarily funded our operations through investments from Pre-IPO Investors and bank borrowings. We believe that we will need to spend substantial resources for research and development and commercialization of our vaccine candidates. See “Business” for details. Our future capital requirements depend on many factors, including:

- the commercialization and sales of our MCV products;
- the timing, receipt, and amount of sales of, or royalties or milestone payments on, our future products, if any;
- the progress, results and costs of the clinical, pre-clinical and other studies of our other vaccine candidates;
- discovery of new vaccine candidates;
- the timing of, and the costs involved in, obtaining regulatory approvals for our vaccine candidates;

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## RISK FACTORS

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- the cost and timing of future commercialization activities for our products, if any of our vaccine candidates are approved for marketing, including product manufacturing, marketing, sales and distribution costs;
- the costs involved in preparing, filing, prosecuting patent applications, maintaining, defending and enforcing our intellectual property rights, including litigation costs and the outcome of such litigation; and
- the extent to which we acquire or in-license other products or technologies.

We plan to primarily use the net proceeds from the Global Offering, together with bank borrowings and cash from operating activities to fund our future operations. However, if commercialization of our vaccine candidates is delayed or terminated, or if expenses increase, we may need to obtain additional financing to fund our operations. Additional funds may not be available when we need them, on terms that are acceptable to us, or at all. Our ability to raise funds will depend on financial, economic and market conditions and other factors, many of which are beyond our control. If adequate funds are not available to us on a timely basis, we may be required to delay, limit, reduce or terminate pre-clinical studies, clinical trials or other research and development activities or commercialization for one or more of our vaccine candidates, and in turn will adversely affect our business prospects.

**We had cash outflow from operating activities during the Track Record Period and may continue to experience net operating cash outflow for the foreseeable future.**

We had net cash used in operating activities of RMB34.4 million, RMB56.3 million and RMB123.6 million for the years ended December 31, 2016, 2017 and 2018, respectively, and we expect that we may not be able to achieve or sustain operating cash inflows for the foreseeable future. Although we believe we have sufficient working capital to fund our operations, if in any case we are unable to maintain adequate liquidity for operating activities, we may not be able to fund our research and development and commercialization activities and to meet our capital expenditure requirements, which may have a material adverse effect on our business prospects, financial condition and results of operations.

**Our financial prospects depend on the successful development and approval of our clinical-stage and pre-clinical stage vaccine pipeline.**

Our ability to generate revenue and become profitable in the future depends upon our ability to successfully complete the development of, obtain the necessary regulatory approvals for, and commercialize our clinical-stage vaccine candidates. We are developing 15 vaccine candidates for 12 disease areas. In addition to our three near-commercial candidates covering meningococcal diseases and Ebola virus disease, we have six vaccine candidates in clinical trial stage or CTA stage. We also have six pre-clinical vaccine candidates including one combination vaccine candidate. We have invested a significant portion of our efforts and financial resources in the development of our existing vaccine candidates, and we expect to continue to incur substantial and increasing expenditures through the projected

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## RISK FACTORS

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commercialization of these vaccine candidates. None of these vaccine candidates have been approved for marketing in China or any other jurisdiction and may never receive such approval. Our ability to achieve revenue and profitability is dependent on our ability to complete the development of our vaccine candidates, obtain necessary regulatory approvals, and have our vaccines manufactured and successfully marketed.

The success of these vaccine candidates will depend on several factors, including:

- completion of pre-clinical studies and successful enrollment in, and completion of, clinical trials;
- receipt of regulatory approvals from the NMPA and other regulatory authorities for our vaccine candidates;
- relying on third parties to conduct our clinical trials safely and efficiently;
- obtaining and maintaining patent, trade secret and other intellectual property protection and regulatory exclusivity;
- protecting our rights in our intellectual property;
- ensuring we do not infringe, misappropriate or otherwise violate the patent, trade secret or other intellectual property rights of third parties;
- competition with other vaccine candidates and vaccines; and
- continued acceptable safety profile for our vaccine candidates following regulatory approval, if and when received.

Moreover, because we have limited financial and managerial resources, we focus our vaccine pipeline on research and development programs and vaccine candidates that we identify for specific indications. As a result, we may forego or delay pursuit of opportunities with other vaccine candidates or for other indications that later prove to have greater commercial potential. Our resource allocation decisions may cause us to fail to capitalize on viable commercial vaccines or profitable market opportunities. Our spending on current and future research and development programs and vaccine candidates for specific indications may not yield any commercially viable products. If we do not accurately evaluate the commercial potential or target market for a particular vaccine candidate, we may relinquish valuable rights to that vaccine candidate through collaboration, licensing or other royalty arrangements in cases in which it would have been more advantageous for us to retain sole development and commercialization rights.

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## RISK FACTORS

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### **We may face substantial competition in the market for vaccines.**

The vaccine market is intensely competitive and rapidly changing. Large multi-national and domestic pharmaceutical companies, academic institutions, governmental agencies and other public and private research organizations have commercialized or are commercializing or pursuing the development of vaccines that target diseases as we do. For example, Ad5-EBOV faces competition from a number of multi-national pharmaceutical companies, including Ebola vaccine candidates under development by Merck, GSK and Johnson & Johnson. A number of our vaccine candidates, such as MCV2 and PCV13i, will compete against vaccines already available in the PRC market, therefore are expected to face fierce competition in the future. In addition, certain of our vaccine candidates have competing candidates at similar or later stages of development. We may not be able to successfully compete with any of these competitors.

Many of our competitors have substantially greater commercial infrastructure and better financial, technical and personnel resources than we have, as well as vaccine candidates in late-stage clinical development. Even if successfully developed and subsequently approved by the NMPA, our vaccine candidates will face competition based on their safety and effectiveness, the timing and scope of the regulatory approvals, the availability and cost of supply, marketing and sales capabilities, price, patent position and other factors. Our competitors may succeed in developing competing vaccines and obtaining regulatory approval before we do with our vaccine candidates, or they may gain acceptance for the same markets that we are targeting. In particular, competition with international vaccine companies could potentially increase as overseas clinical data are now accepted in applications for drug registration in China pursuant to policy reforms by the NMPA in October 2017. If we are not “first-to-market” with one of our vaccine candidates, our competitive position could be compromised because it may be more difficult for us to successfully market that vaccine candidate. In addition, any new product that competes with an approved product must demonstrate compelling advantages in efficacy, convenience, tolerability and safety in order to overcome price competition and to be commercially successful. Disruptive technologies and medical breakthroughs may compete with our vaccine candidates or render our vaccine candidates obsolete or noncompetitive.

### **We have a limited operating history, which may make it difficult to evaluate our current business and predict our future performance.**

Incorporated in 2009, we have a limited operating history compared to some of our competitors, especially multi-national vaccine companies. We filed the NDA for our MCV2 candidate in January 2019, and expect to file the NDA for our MCV4 candidate in 2019. Most of our vaccine candidates are still under various stages of development, and we have not yet demonstrated ability to successfully obtain regulatory approvals, manufacture and commercialize those vaccine candidates. Our limited operating history may make it difficult to evaluate our current business and predict our future performance. Any predictions you make about our future success or viability may be subject to uncertainty and may not be as accurate as they could be if we had a longer operating history. We may encounter risks and difficulties frequently experienced by early-stage companies in rapidly evolving fields as we seek to transit

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## RISK FACTORS

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to a company capable of supporting more intensive commercial activities. In addition, as a new business, we may encounter unforeseen expenses, difficulties, complications, delays and other known and unknown factors. If we do not address these risks and difficulties successfully, our business will suffer.

### **RISKS RELATING TO DEVELOPMENT, CLINICAL TRIALS AND REGULATORY APPROVAL OF OUR VACCINE CANDIDATES**

#### **We may be unable to obtain regulatory approval for our vaccine candidates.**

Our business is substantially dependent on our ability to complete the development of, obtain regulatory approval for and successfully commercialize our vaccine candidates in a timely manner. We cannot commercialize vaccine candidates without obtaining regulatory approval to market each vaccine from the NMPA. The time required to obtain approval from the NMPA is unpredictable but typically takes years following the commencement of pre-clinical studies and clinical trials and depends upon numerous factors, including the substantial discretion of the regulatory authorities. In addition, approval policies, regulations or the type and amount of clinical data necessary to gain approval may change during the course of a vaccine candidate's clinical development and may vary among jurisdictions. Moreover, changes in regulatory requirements and guidance during our clinical trials may occur, which may result in necessary changes to clinical trial protocols, which could increase our costs, delay the timeline for or reduce the likelihood of regulatory approval for our vaccine candidates. As of the Latest Practicable Date, we had not received NDA approval for any of our vaccine candidates except for Ad5-EBOV, and it is possible that none of our existing vaccine candidates or any vaccine candidates we may discover, in-license or acquire and seek to develop in the future will ever obtain such approval.

#### **We may not be able to identify, discover or in-license new and suitable vaccine candidates.**

We may fail to identify suitable vaccine candidates for clinical development for a number of reasons. For example, our research methodology may be unsuccessful in identifying potential vaccine candidates or those we identify may be shown to have harmful side effects or other characteristics that make them unmarketable or unlikely to receive regulatory approval. We have devoted significant resources to the development of our vaccine pipeline through our platform technologies, and we cannot guarantee that we will be successful in identifying potential vaccine candidates. Historically, we have in-licensed or collaborated on a number of vaccine candidates. We cannot guarantee that we will be able to continue to successfully identify and in-license or collaborate on new vaccine candidates with high potential.

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## RISK FACTORS

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Research programs to pursue the development of our vaccine candidates for additional indications and to identify new vaccine candidates and vaccine targets require substantial technical, financial and human resources. Our research programs may initially show promise in identifying potential indications and/or vaccine candidates, yet fail to yield results for clinical development for a number of reasons, including:

- the research methodology used may not be successful in identifying potential indications and/or vaccine candidates;
- potential vaccine candidates may, after further study, be shown to have adverse effects or other characteristics that indicate they are unlikely to be effective vaccines; or
- it may take greater human and financial resources to develop suitable potential vaccine candidates through internal research programs than we will possess, thereby limiting our ability to diversify and expand our vaccine portfolio.

Accordingly, there can be no assurance that we will ever be able to identify additional appropriate opportunities for our vaccine candidates or to develop effective potential vaccine candidates through our team and proprietary platform technologies, which could materially adversely affect our future growth and prospects. We may focus our efforts and resources on potential vaccine candidates or other potential programs that ultimately prove to be unsuccessful.

**If we encounter difficulties enrolling subjects in our clinical trials, clinical trials of our vaccine candidates could be delayed or otherwise adversely affected.**

The timely completion of clinical trials in accordance with their protocols depends, among other things, on our ability to enroll a sufficient number of subjects who remain in the trial until its conclusion. We may experience difficulties in subjects enrollment in our clinical trials for a variety of reasons, including:

- the infection rates of targeted infectious diseases and population at risks of infection;
- the size of the study population required for analysis of the trial's primary endpoints;
- the design of the trial;
- our ability to recruit clinical trial investigators with the appropriate competencies and experience;
- the age of subjects which require parental consent;
- our ability to obtain and maintain subject consents;

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## RISK FACTORS

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- the risk that subjects enrolled in clinical trials will not complete a clinical trial; and
- the availability of approved vaccines that are non-inferior even superior to our vaccine candidates.

In addition, our clinical trials may compete with our competitors' clinical trials for vaccine candidates that are in the same preventive areas as our vaccine candidates. Such competition will reduce the number and types of subjects available to us, as some subjects might opt to enroll in a trial being conducted by our competitors instead of ours. Even if we are able to enroll a sufficient number of subjects in our clinical trials, delays in subject enrollment may result in increased costs or may affect the timing or outcome of the planned clinical trials, which could prevent completion of these trials and adversely affect our ability to advance the development of our vaccine candidates.

**We may rely on third parties to monitor, support and/or conduct clinical trials of our vaccine candidates.**

We may rely on academic institutions, organizations that conduct serologic analysis, CROs, hospitals and clinics who are beyond our control to monitor, support, conduct pre-clinical and/or clinical studies of our vaccine candidates. We also rely on third parties to perform clinical trials on our vaccine candidates when they reach that stage. As a result, we have less control over the quality, timing and cost of these studies and the ability to recruit trial subjects than if we conducted these trials wholly by ourselves. If we are unable to maintain or enter into agreements with these third parties on acceptable terms, or if any such engagement is terminated, we may be unable to enroll subjects on a timely basis or otherwise conduct our trials in the manner we anticipate. In addition, there is no guarantee that these third parties will devote adequate time and resources to our studies or perform as required by a contract or in accordance with regulatory requirements, including maintenance of clinical trial information regarding our future vaccine candidates. If these third parties fail to meet expected deadlines, fail to timely transfer to us any regulatory information, fail to adhere to protocols or fail to act in accordance with regulatory requirements or our agreements with them, or if they otherwise perform in a substandard manner or in a way that compromises the quality and/or accuracy of their activities and/or the data they obtain, then clinical trials of our future vaccine candidates may be extended, delayed or terminated, or our data may be rejected by the NMPA or regulatory agencies.

**Vaccine development involves a lengthy and expensive process with uncertain outcomes.**

Before obtaining regulatory approval for the sale of our vaccine candidates, we must conduct extensive clinical trials to demonstrate the safety and efficacy of our vaccine candidates in humans. Clinical trials are expensive, difficult to design and implement, can take many years to complete and is uncertain as to outcome. A failure of one or more of our clinical trials can occur at any stage of testing. The outcome of pre-clinical testing and early clinical trials may not be predictive of the success of later clinical trials, and successful interim results of a clinical trial do not necessarily predict successful final results.



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## RISK FACTORS

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We may experience numerous unexpected events during, or as a result of, clinical trials that could delay or prevent our ability to receive regulatory approval or commercialize our vaccine candidates, including:

- regulators may not authorize us or our investigators to commence a clinical trial or conduct a clinical trial at a prospective trial site;
- clinical trials of our vaccine candidates may produce negative or inconclusive results, and we may decide, or regulators may require us, to conduct additional clinical trials or abandon vaccine development programs;
- the number of subjects required for clinical trials of our vaccine candidates may be larger than we anticipate, enrollment may be insufficient or slower than we anticipate or subjects may drop out at a higher rate than we anticipate;
- our CROs may fail to comply with regulatory requirements or meet their contractual obligations to us in a timely manner, or at all;
- we might have to suspend or terminate clinical trials of our vaccine candidates for various reasons, including a finding of a lack of clinical response or a finding that participants are being exposed to unacceptable health risks;
- regulators may require that we or our investigators suspend or terminate clinical research for various reasons, including non-compliance with regulatory requirements;
- the cost of clinical trials of our vaccine candidates may be greater than we anticipate;
- the supply or quality of our vaccine candidates or other materials necessary to conduct clinical trials of our vaccine candidates may be insufficient or inadequate; and
- our vaccine candidates may cause adverse events, have undesirable side effects or other unexpected characteristics, causing us or our investigators to suspend or terminate the trials.

If we are required to conduct additional clinical trials or other testing of our vaccine candidates beyond those that we currently contemplate, if we are unable to successfully complete clinical trials of our vaccine candidates or other testing, if the results of these trials or tests are not positive or are only modestly positive or if they raise safety concerns, we may:

- be delayed in obtaining regulatory approval for our vaccine candidates;
- not obtain regulatory approval at all;

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## RISK FACTORS

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- obtain approval for indications that are not as broad as intended;
- have the vaccine removed from the market after obtaining regulatory approval; or
- be subject to additional post-marketing study requirements.

Delays in testing or approvals may result in increases in our vaccine development costs. We do not know whether any clinical trials will begin as planned, will need to be restructured or will be completed on schedule, or at all. Significant clinical trial delays also could shorten any periods during which we have the exclusive right to commercialize our vaccine candidates or allow our competitors to bring products to market before we do and impair our ability to commercialize our vaccine candidates and may harm our business and results of operations.

Our vaccine candidates could fail to receive regulatory approval from the NMPA for many reasons, including:

- disagreement with the design or implementation of our clinical trials;
- disagreement on the specifications and standards of new vaccines. For example, in February 2018, we withdrew our CTA for our Tdcp Adolescent and Adult candidate because the Pharmacopoeia of China did not provide specifications and standards for this new vaccine, and we did not reach an agreement with the NMPA on the selection of potency standards;
- failure to demonstrate that a vaccine candidate is safe, effective and potent for its proposed indication;
- failure of clinical trial results to meet the level of statistical significance required for approval;
- failure to demonstrate that a vaccine candidate's clinical and other benefits outweigh its safety risks;
- disagreement with our interpretation of data from pre-clinical studies or clinical trials;
- the insufficiency of data collected from clinical trials of our vaccine candidates to support the filing of an NDA or other submission or to obtain regulatory approval;
- the unpredictability and risk in obtaining NDA approvals for vaccine candidates receiving umbrella CTA approvals as no formal NMPA assurance is required to advance to the next phase of clinical trials in such cases;
- the NMPA's finding of deficiencies related to the manufacturing processes or facilities; and

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## RISK FACTORS

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- changes in approval policies or regulations that render our pre-clinical and clinical data insufficient for approval.

The NMPA may require more information, including additional pre-clinical or clinical data, to support approval, which may delay or prevent approval and our commercialization plans, or we may decide to abandon the development program. If we were to obtain approval, regulatory authorities may approve any of our vaccine candidates for fewer or more limited indications than we request, may grant approval contingent on the performance of costly post-marketing clinical trials, or may approve a vaccine candidate with a label that is not desirable for the successful commercialization of that vaccine candidate. In addition, if any of our vaccine candidates produces undesirable side effects or safety issues, the NMPA may require the establishment of risk evaluation and mitigation measures that may, for instance, restrict distribution of our vaccines and impose burdensome implementation requirements on us. Any of the foregoing scenarios could materially harm the commercial prospects of our vaccine candidates.

### **Results of earlier clinical trials may not be predictive of results of later-stage clinical trials.**

The results of pre-clinical studies and early clinical trials of our vaccine candidates may not be predictive of the results of later-stage clinical trials. Vaccine candidates in later stages of clinical trials may fail to show the desired safety and efficacy traits despite having progressed through pre-clinical studies and initial clinical trials. Future clinical trial results may not be favorable for these and other reasons.

In some cases, there can be significant variability in safety and/or efficacy results between different trials of the same vaccine candidate due to numerous factors, including changes in trial procedures set forth in protocols, differences in the size and type of the subject populations, including genetic and biological differences and other trial protocols. As vaccine candidates are developed through pre-clinical to early-to late-stage clinical trials towards approval and commercialization, it is customary that various aspects of the development program, such as manufacturing and formulation, are altered along the way in an effort to optimize processes and results. Such changes carry the risk that they will not achieve these intended objectives. In the case of any trials we conduct, results may differ from earlier trials due to the larger number of clinical trial sites and additional countries and languages involved in such trials. Any of these changes could make the results of planned clinical trials or other future clinical trials we may initiate less predictable and could cause our vaccine candidates to perform differently, which could delay completion of clinical trials, delay approval of our vaccine candidates and/or jeopardize our ability to commence commercialization of our vaccine candidates.

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## RISK FACTORS

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**We may not be able to comply with ongoing regulatory obligations and continued regulatory review even if we receive regulatory approval for our vaccine candidates.**

If our vaccine candidates are approved, they will be subject to ongoing regulatory requirements for manufacturing, labeling, packaging, storage, advertising, promotion, sampling, record-keeping, conduct of post-marketing studies, and submission of safety, efficacy, and other post-market information in China.

Manufacturers and manufacturers' facilities are required to comply with extensive NMPA requirements, including ensuring that quality control and manufacturing procedures conform to current Good Manufacturing Practices, or cGMP, regulations. As such, we will be subject to continual review and inspections to assess compliance with cGMP and adherence to commitments made in any NDA, other marketing application, and previous responses to inspection observations. Accordingly, we must continue to expend time, money and effort in all areas of regulatory compliance, including manufacturing, production and quality control.

The NMPA may withdraw approval if compliance with regulatory requirements and standards is not maintained or if problems occur after the vaccine reaches the market. Later discovery of previously unknown problems with our vaccine candidates, including adverse events of unanticipated severity or frequency, or with our manufacturing processes, or failure to comply with regulatory requirements, may result in revisions to the approved labeling to add new safety information; imposition of post-market studies or clinical studies to assess new safety risks; or imposition of distribution restrictions or other restrictions under a risk evaluation and mitigation program. Other potential consequences include, among other things:

- restrictions on the commercialization or manufacturing of our vaccines, withdrawal of the vaccine from the market, or voluntary or mandatory product recalls;
- fines, untitled or warning letters, or holds on clinical trials;
- refusal by the NMPA to approve pending applications or supplements to approved applications filed by us or suspension or revocation of license approvals;
- product seizure or detention, or refusal to permit the import or export of our vaccine candidates; and
- injunctions or the imposition of civil or criminal penalties.

We cannot predict the likelihood, nature or extent of government regulation that may arise from future legislation or administrative action. If we are slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or if we are not able to maintain regulatory compliance, we may lose any regulatory approval that we may have obtained and we may not achieve or sustain profitability.

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## RISK FACTORS

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In addition, if we were able to obtain conditional approval of any of our vaccine candidates, the NMPA may require us to conduct a confirmatory study to verify the predicted clinical benefit and additional safety studies. The results from the confirmatory study may not support the clinical benefit, which would result in the approval being withdrawn. While operating under conditional approval, we will be subject to certain restrictions that we would not be subject to upon receiving regular approval.

### **Our vaccine candidates may cause adverse events.**

Adverse events caused by our vaccine candidates could cause us or regulatory authorities to interrupt, delay or halt clinical trials and could result in a more restrictive label or the delay or denial of regulatory approval by the NMPA. Results of our clinical trials could reveal a high and unacceptable seriousness or prevalence of adverse events. In such an event, our clinical trials could be suspended or terminated and the NMPA could order us to cease further development of, or deny approval of, our vaccine candidates for any or all targeted indications. For details of the adverse events of our vaccine pipeline as observed during clinical trials, see “Business – Our Vaccine Pipeline.” Adverse events related to our vaccine candidates could affect subjects recruitment or the ability of enrolled subjects to complete the trial, and could result in potential product liability claims. Any of these occurrences may harm our reputation, business, financial condition and prospects significantly.

Additionally if one or more of our vaccine candidates receives regulatory approval, and we or others later identify undesirable side effects caused by such vaccines, a number of potentially significant negative consequences could result, including:

- we may suspend commercialization of the vaccine;
- regulatory authorities may withdraw approvals of the vaccine;
- regulatory authorities may require additional warnings on the label;
- we may be required to develop risk evaluation and mitigation measures for the vaccine or, if risk evaluation and mitigation measures are already in place, to incorporate additional requirements under the risk evaluation and mitigation measures;
- we may be required to conduct post-market studies;
- we could be sued and held liable for harm caused to subjects; and
- our reputation may suffer.

Any of these events could prevent us from achieving or maintaining market acceptance of the particular vaccine candidate, and could significantly harm our business, results of operations and prospects.

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## RISK FACTORS

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### **RISKS RELATING TO COMMERCIALIZATION OF OUR VACCINE AND VACCINE CANDIDATES**

**We may not be able to be successfully prequalified by provincial CDCs of our target provinces or secure subsequent product orders.**

We expect the PRC government, such as CDCs, to be our primary customers. We are focused on China's private vaccine market, and substantially all of our vaccine candidates are required to be prequalified by provincial CDCs of our target provinces through a bidding process before undertaking any sales. The CDCs usually select one or more suppliers for the same type of vaccines, taking into consideration, among other things, the quality and price of the products and the service and reputation of the suppliers. We may be unsuccessful in winning bids in the tender process to prequalify our products at the provincial level. If we fail to obtain the required prequalification, we will lose market share to our competitors, and our revenue and profitability will be adversely affected. Even if our vaccines are prequalified, we cannot guarantee that we will be able to secure purchase orders from local CDCs. If provincial CDCs do not purchase our products, or the purchase volume is lower than expected, our business, financial conditions and results of operations would be adversely affected.

**The recession or eradication of the infectious diseases that our vaccines target may adversely affect our sales.**

We have devoted significant resources to the research and development of vaccines against pandemic threats, and will continue to devote resources to the development of vaccines to address emerging pandemic threats. However, a pandemic may have receded before we realize any return on our investment in the research and development of our vaccines. Moreover, diseases that our vaccines target may be eradicated, which would eliminate the market demand of our vaccines. In addition, outbreaks of infectious diseases may cause CDCs to significantly increase their purchases of vaccines against the pandemic diseases and reduce purchases of other vaccines in a short period. Changes of the procurement plans of CDCs could adversely affect sales of our vaccine products.

**The availability of alternative vaccines or treatment technologies may adversely affect our sales.**

Medical technologies are evolving and new vaccines or treatment technologies for diseases that our vaccines target may emerge. If these competing new vaccines or technologies are perceived by the purchasers to be significantly more effective than our vaccines, market demand for our vaccines may decline. The occurrence of any of the foregoing could materially and adversely affect our business, financial condition and results of operations.

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## RISK FACTORS

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**The commercial success of any of our vaccine and vaccine candidates will depend upon its degree of market acceptance by vaccinees, national and local CDCs, KOLs and others in the vaccine or disease prevention industry.**

Even with the requisite approvals from the NMPA and purchases carried out by the CDCs, the commercial success of our product candidates will depend, in part, on the acceptance of our product candidates by vaccinees, national and local CDCs, KOLs and others in the vaccine or disease prevention industry as medically necessary, cost-effective and safe. Any product that we commercialize may fail to gain acceptance by vaccinees, national and local CDCs, KOLs and others in the vaccine or disease prevention industry, and such persons may prefer other vaccines to ours. If these commercialized products do not achieve an adequate level of acceptance, we may not generate significant product revenue and may not become profitable. The degree of market acceptance of our vaccine and vaccine candidates, if approved for commercial sale, will depend on several factors, including:

- the effectiveness of our sales and marketing efforts;
- the efficacy and safety of such vaccine and vaccine candidates as demonstrated in clinical trials;
- physicians, hospitals and vaccinees considering our vaccine and vaccine candidates as safe and effective;
- the potential and perceived advantages of our vaccine and vaccine candidates over other vaccines;
- the cost of vaccines relative to alternative products;
- the willingness of the public to purchase private market vaccines;
- the clinical indications for which the vaccine candidate is approved by the NMPA or other regulatory body;
- the availability of vaccines and level of convenience of dosing schedule and dosage form, as compared with competing vaccines;
- the willingness and ability of local CDCs to purchase our products;
- the target population's perception of the desirability of new vaccines;
- the willingness of the target population to try new vaccines;
- the prevalence and severity of any side effects;
- product labeling or product insert requirements of the NMPA or other regulatory authorities, including any limitations or warnings contained in a product's approved labeling;

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## RISK FACTORS

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- the strength of marketing and distribution support;
- the timing of market introduction of competing products; and
- publicity concerning our products or competing products.

Even if a potential product displays a favorable efficacy and safety profile in pre-clinical studies and clinical trials, market acceptance of the product will not be fully known until after it is launched. In addition, because our vaccine and vaccine candidates are intended to prevent infectious diseases, demand for our products in any given year may be impacted by the relative severity and prevalence of such diseases and the effectiveness of existing vaccines, if any, in providing immunity. Even when infectious diseases become quite prevalent and severe in a given year, demands for our products may still not increase because our products are being strategically stockpiled, and the competitors' products may be more readily available.

Even if our vaccines achieve market acceptance, we may not be able to maintain that market acceptance over time if new products are introduced that are more favorably received than our vaccines, are more cost effective or render our vaccines obsolete.

### **We have limited experience in commercializing vaccine candidates in China.**

We have not yet demonstrated an ability to commercialize any of our vaccine candidates in China. As a result, the commercialization of our vaccine candidates may involve more risk, take longer and cost more than it would if we had more experience in commercializing vaccine candidates in China. We are in the process of building a commercial team for our vaccine candidates, and may have to compete with other pharmaceutical companies to recruit qualified personnel. Moreover, we are developing marketing and commercialization strategies in anticipation of future sales. However, we cannot assure you that our pre-launch efforts will guarantee market success. There may be circumstances during the actual sales of our products that we did not anticipate prior to commercialization that may require us to adjust our sales and marketing strategies, recruit additional personnel or incur unforeseen costs and expenses to address those circumstances, which may affect our business and results of operations.

### **Any failure to perform proper quality control and quality assurance would have a material adverse effect on our business and financial results.**

Manufacturing of vaccine products for commercial sale are subject to applicable laws, regulations and GMP requirements. These regulations govern manufacturing processes and procedures, including record keeping and the implementation and operation of quality management systems to control and assure the quality of investigational products and products approved for sale. We apply stringent quality controls at each stage of our production process to comply with these requirements. We perform extensive tests throughout the manufacturing processes to ensure the safety and effectiveness of our vaccine products. We may, however, detect instances in which an unreleased product was produced without adherence to our manufacturing procedures or the raw material used in our production process was not collected to store in accordance with the GMP standards or other regulations, resulting in a determination that the implicated products should be destroyed.



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In addition, if we fail to comply with relevant quality control requirements under laws and GMP, we could experience a disruption in the supply of our vaccine products, which could delay or prevent further sales of such products, which could have a material adverse effect on our business and financial results.

In addition, quality issues may arise during scale-up activities. If we are unable to successfully ensure consistent and high quality of our vaccine products during large-volume production, the sales of our vaccines may not be able to be promoted, which could have a material adverse effect on our business and financial results.

### **Vaccine products are susceptible to contamination.**

Vaccine production usually requires cultivation steps, including growth of the appropriate organism and the use of substances of animal origin, which makes it easy to introduce a contaminant and to amplify low levels of contamination. In addition, manufacturing operations based on the sharing of equipment and facilities is common. Moreover, other activities such as diagnosis and research are frequently linked to manufacture and this may result in opportunities for cross-contamination.

Contamination of our vaccine products could cause customers or other third parties with whom we conduct business to lose confidence in the reliability of our manufacturing procedures, which could adversely affect our sales and profits. In addition, contaminated products that are unknowingly distributed could result in harm on vaccinees, threaten the reputation of our products and expose us to product liability claims, criminal charges and administrative sanctions.

### **Failure to establish a complete and effective network of cold-chain logistics providers may cause great risk of damage to our vaccine products and our reputation and business would suffer.**

Vaccines are sensitive biological products. Some vaccines are sensitive to freezing, some to heat and others to light. To maintain quality and potency, vaccines must be stored in good conditions through cold-chain logistics providers. In order to maintain a reliable vaccine cold chain at manufacture level before delivery to our customers, we are required to, among others, establish a complete and effective network of cold-chain logistics providers to store vaccines and diluents within the approved temperature range at all sites, pack and transport vaccines to and from outreach sites according to recommended procedures, and perform regular oversight and monitor on the delivery process to our customers. If we or third parties we cooperated with fail to do so, our vaccine products may be exposed to inappropriate temperatures or other improper storage conditions and subject to potency diminishment or even potency loss. In this case, all the vaccine products are subject to quality damage and may need to be destroyed. As a result, our reputation and business would suffer.

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## RISK FACTORS

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**The manufacture of vaccines is a highly exacting and complex process, and if we encounter problems in manufacturing our products, our business could suffer.**

The manufacture of vaccines is a highly exacting and complex process, due in part to strict regulatory requirements. Problems may arise during manufacturing for a variety of reasons, including equipment malfunction, failure to follow specific protocols and procedures, problems with raw materials, delays related to the construction of new facilities or the expansion of our existing manufacturing facility, including changes in manufacturing production sites and limits to manufacturing capacity due to regulatory requirements, changes in the types of products produced, physical limitations that could inhibit continuous supply, man-made or natural disasters and environmental factors. If problems arise during the production of a batch of product, that batch of product may have to be discarded and we may experience product shortages or incur added expenses. This could, among other things, lead to increased costs, lost revenue, damage to customer relationships, time and expense spent investigating the cause and, depending on the cause, similar losses with respect to other batches or products. If problems are not discovered before the product is released to the market, recall and product liability costs may also be incurred.

**We expect to sell most of our products to CDCs in China, which exposes us to uncertainties associated with the government funding and budgeting process.**

We expect to derive a substantial portion of our revenue directly or indirectly from sales to CDCs, which are affiliated with the PRC government. We are accordingly exposed to various risks relating to conducting business with the government. As CDCs are generally required to seek approvals from local governments before making any purchase of vaccines, their demand for our products and their ability to make timely payment may be affected by government budgetary cycles, fluctuating availability of public funds and changes in policy. In addition, we have no influence over government procurement decisions, and CDCs may request to reduce or even cancel orders, or demand price adjustments or other changes under certain conditions. Funding reductions, delays in payment or unilateral demands by CDCs could adversely impact our business, results of operations, cash flow and financial condition, making it difficult for us to allocate resources or anticipate demand for our products, or result in our failure to meet, or a downward revision to, our sales and gross margin guidance or estimates. In addition, many remedies that are available to us when dealing with private parties, such as making claims for breach of contract or taking other legal actions, may not be available or practicable in our dealings with CDCs.

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## RISK FACTORS

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**If we fail to obtain regulatory approval in any targeted jurisdictions outside of China, we will not be able to market our products in those jurisdictions.**

We intend to market certain of our vaccine candidates, such as our MCV4 candidate and Tdcp Adolescent and Adult candidate, if approved, in India and EU, respectively. This will require separate regulatory approvals in each market and compliance with numerous and varying regulatory requirements. The approval procedures vary among regions and countries and may involve requirements for additional testing, and the time required to obtain approval may differ from that required to obtain NMPA approval.

In addition, in many countries outside China, the prices that we intend to charge for our vaccines may also subject to approval. Approval by the NMPA does not ensure approval by regulatory authorities in other countries or jurisdictions, and approval by one foreign regulatory authority does not ensure approval by regulatory authorities in other foreign countries or by the NMPA. The foreign regulatory approval process may include all of the risks associated with obtaining NMPA approval. We may not obtain foreign regulatory approvals on a timely basis, if at all. We may not be able to file for regulatory approvals and may not receive necessary approvals to commercialize our vaccines in any market.

**If we obtain approval to commercialize our vaccine and vaccine candidates outside of China, a variety of risks associated with international operations could materially adversely affect our business.**

We intend to market certain of our vaccine candidates, such as our MCV4 candidate and Tdcp Adolescent and Adult candidate, if approved, in international markets. We expect that we will be subject to additional risks in commercializing our vaccine candidates outside of China, including:

- different regulatory requirements for vaccines and biologics in foreign countries;
- weakened protection for our intellectual property rights, or more aggressive protection of our competitors' intellectual property rights;
- unexpected changes in tariffs, trade barriers and regulatory requirements;
- economic weakness, including, but not limited to, inflation, or political instability in particular foreign economies and markets;
- compliance with tax, employment, immigration and labor laws for employees living or traveling abroad;
- foreign currency fluctuations and remittance limitations, which could result in increased operating expenses and reduced revenues, and other obligations incident to doing business in another country;
- workforce uncertainty in countries where labor unrest is more common than in China;

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## RISK FACTORS

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- production shortages resulting from any events affecting raw material supply or manufacturing capabilities abroad; and
- business interruptions resulting from geopolitical actions, including war and terrorism or natural disasters including earthquakes, typhoons, floods and fires.

**We use certain properties for our business and operations. Any disruption to our continuous use of these properties could adversely affect our business and results of operations.**

We lease certain properties and own a commercial-scale manufacturing facility in Tianjin. We rely on these properties for the research, development and manufacture of commercial and clinical supply of our vaccine and vaccine candidates. If our relevant properties were damaged or destroyed, or otherwise subject to disruption, it would require substantial lead-time for us to search for alternative measures to continue our business and operations. In such event, we would be forced to identify alternative premises for relocation. Any disruptions or delays at these properties or their failure to meet regulatory compliance would impair our ability to develop and commercialize our vaccine candidates and vaccine products, which would adversely affect our business and results of operations.

### **RISKS RELATING TO OUR DEPENDENCE ON THIRD PARTIES**

**We have engaged in in-licensing and collaboration arrangements to develop and commercialize a number of vaccine candidates, and may continue to seek strategic partnerships and collaborations or enter into additional licensing arrangements in the future, which is subject to risks.**

During the Track Record Period, we engaged in license agreements with third parties under which they provided us with rights under various third-party patents and patent applications, including the rights to prosecute patent applications and to enforce patents, to develop, manufacture and commercialize certain vaccine candidates. We have also licensed out certain of our patents and technologies to third parties and collaborated with third parties to co-develop certain vaccine candidates. We have benefited from these arrangements, and we may continue to seek strategic alliances or enter into additional licensing arrangements. Any of these relationships may require us to incur non-recurring and other charges, increase our near and long-term expenditures, issue securities that dilute our existing shareholders, or disrupt our management and business. In addition, we face significant competition in seeking appropriate strategic partners and the negotiation process is time-consuming and complex. Collaborations involving our vaccine candidates are subject to numerous risks, which may include the following:

- collaborators have significant discretion in determining the efforts and resources that they will apply to a collaboration;
- collaborators could independently develop, or develop with third parties, vaccines that compete directly or indirectly with our vaccines or vaccine candidates;

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## RISK FACTORS

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- collaborators may not properly maintain or defend our intellectual property rights or may use our intellectual property or proprietary information in a way that gives rise to actual or threatened litigation that could jeopardize or invalidate our intellectual property or proprietary information or expose us to potential liability;
- disputes may arise between us and a collaborator that cause the delay or termination of the research, development or commercialization of our vaccine candidates, or that result in costly litigation or arbitration that diverts management attention and resources;
- collaborations may be terminated and, if terminated, may result in a need for additional capital to pursue further development or commercialization of the applicable vaccine candidates; and
- collaborators may own or co-own intellectual property covering our vaccines that results from our collaborating with them, and in such cases, we would not have the exclusive right to commercialize such intellectual property.

As a result, if we enter into collaboration agreements and strategic partnerships or in-license our vaccine, we may not be able to realize the benefit of such transactions if we are unable to successfully integrate them with our existing operations and company culture, which could delay our timelines or otherwise adversely affect our business. We also cannot assure you that, following a strategic transaction or license, we will achieve the revenue or specific net income that justifies such transaction. If we are unable to reach agreements with suitable collaborators on a timely basis, on acceptable terms, or at all, we may have to curtail the development of a vaccine candidate, reduce or delay its development program or one or more of our other development programs, delay its potential commercialization or reduce the scope of any sales or marketing activities, or increase our expenditures and undertake development or commercialization activities at our own expense. If we elect to fund and undertake development or commercialization activities on our own, we may need to obtain additional expertise and additional capital, which may not be available to us on acceptable terms or at all. If we fail to enter into collaborations and do not have sufficient funds or expertise to undertake the necessary development and commercialization activities, we may not be able to further develop our vaccine candidates or bring them to market and generate revenue, which would harm our business prospects, financial condition and results of operations.

**Our business depends on the use of raw materials, and a decrease in the supply, or an increase in the cost of these raw materials could materially and adversely affect our business, financial condition and results of operation.**

In order to manufacture our products, we must obtain sufficient quantities of high-quality raw materials at commercially acceptable prices and in a timely manner. Certain critical raw materials, such as peptone and chromatograph resins, are available from a limited number of suppliers in the market. As a result, any disruption in production or inability of our suppliers to produce adequate quantities to meet our needs could impair our ability to operate our

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## RISK FACTORS

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business on a day-to-day basis and to continue our research and development of our future vaccine candidates. Moreover, we expect our demand for such materials to increase as we expand our business scale and commercialize our products, and we cannot guarantee that current suppliers have the capacity to meet our demand. We are also exposed to the possibility of increased costs, which we may not be able to pass on to customers and as a result, lower our profitability. In addition, although we have implemented quality inspection procedures on such materials before they are used in our manufacturing processes. We also require our suppliers to maintain high quality standards, we cannot guarantee that we will be able to secure sufficient quantities of raw materials at high quality standards, nor detect all quality issues in the supplies we use. We cannot assure you that these third parties will be able to maintain and renew all licenses, permits and approvals necessary for their operations or comply with all applicable laws and regulations. Failure to do so by them may lead to interruption in their business operations, which in turn may result in shortage of the drug substance supplied to us. If we are unable to do so and the quality of our products suffer as a result, we may have to delay clinical trials and regulatory filings, recall our products, be subject to product liability claims, fail to comply with continuing regulatory requirements and incur significant costs to rectify such issue, which may have a material and adverse effect on our business, financial condition and results of operations.

### **RISKS RELATING TO OUR INTELLECTUAL PROPERTY RIGHTS**

**We could be unsuccessful in obtaining or maintaining adequate intellectual property protection for one or more of our vaccine candidates.**

Our commercial success will depend, in large part, on our ability to obtain and maintain patent and other intellectual property protection with respect to our vaccines and vaccine candidates. Most of our key technologies and processes regarding products formulation and manufacturing are developed and maintained as trade secrets and proprietary know-how, and we may not seek patent protection for such technologies and processes to maintain a competitive position for our products. We cannot guarantee that our competitors will not develop and seek patent protection for the same or related technologies and processes that prevent us from using such technologies and processes or producing our products. Even if we decide to seek patent protection, we cannot be certain that patents will be issued or granted with respect to our patent applications that are currently pending, or that issued or granted patents will not later be found to be invalid and/or unenforceable, be interpreted in a manner that does not adequately protect our vaccine candidates, or otherwise provide us with any competitive advantage. Moreover, the patent applications in respect of patents licensed under our in-license arrangements may not be issued or granted, and as a result, we may not be able to have adequate protection with respect to such patents. The patent position of biotechnology and pharmaceutical companies is generally uncertain because it involves complex legal and factual considerations. Patent applications we had applied may not be granted in the end. As such, we do not know the degree of future protection that we will have on our vaccines and technology, if any, and a failure to obtain adequate intellectual property protection with respect to our vaccine candidates could have a material adverse impact on our business.

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### **Issued patents covering one or more of our vaccine candidates could be found invalid or unenforceable if challenged in court.**

Despite measures we take to obtain patent and other intellectual property protection with respect to our vaccine candidates, any of our intellectual property rights could be challenged or invalidated. For example, if we were to initiate legal proceedings against a third party to enforce a patent covering one of our vaccine candidates, the defendant could counterclaim that our patent is invalid and/or unenforceable. In patent litigation in China, defendant counterclaims alleging invalidity and/or unenforceability are commonplace. Grounds for a validity challenge could be an alleged failure to meet any of several statutory requirements, for example, lack of novelty, obviousness or non-enablement. Grounds for an unenforceability assertion could be an allegation that someone connected with prosecution of the patent withheld relevant information from the State Intellectual Property Office, or the applicable foreign counterpart, or made a misleading statement, during prosecution. Although we believe that we have conducted our patent prosecution in accordance with the duty of candor and in good faith, the outcome following legal assertions of invalidity and unenforceability during patent litigation is unpredictable. With respect to the validity question, for example, we cannot be certain that there is no invalidating prior art, of which we and the patent examiner were unaware during prosecution. If a defendant were to prevail on a legal assertion of invalidity and/or unenforceability, we would lose at least part, and perhaps all, of the patent protection on a vaccine candidate. Even if a defendant does not prevail on a legal assertion of invalidity and/or unenforceability, our patent claims may be construed in a manner that would limit our ability to enforce such claims against the defendant and others. Any loss of patent protection could have a material adverse impact on one or more of our vaccine candidates and our business.

Enforcing our intellectual property rights against third parties may also cause such third parties to file other counterclaims against us, which could be costly to defend and could require us to pay substantial damages, cease the sale of certain vaccines or enter into a license agreement and pay royalties (which may not be possible on commercially reasonable terms or at all). Any efforts to enforce our intellectual property rights are also likely to be costly.

### **Claims that our vaccine candidates or the sale or use of our future products infringe the patents or other intellectual property rights of third parties could result in costly litigation or could require substantial time and money to resolve, even if litigation is avoided.**

Our commercial success depends upon our ability to develop, manufacture and commercialize our vaccine candidates without infringing the intellectual property rights of others. We cannot guarantee that our vaccine candidates or our vaccine candidates do not and will not in the future infringe third-party patents or other intellectual property rights. Third parties might allege that we are infringing their patent rights or that we have misappropriated their trade secrets, or that we are otherwise violating their intellectual property rights, whether with respect to the manner in which we have conducted our research, use or manufacture the compounds we have developed or are developing. Such third parties might resort to litigation against us or other parties we have agreed to indemnify, which litigation could be based on either existing intellectual property or intellectual property that arises in the future.



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## RISK FACTORS

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It is also possible that we fail to identify, or may in the future fail to identify, relevant patents or patent applications held by third parties that cover our vaccine candidates. Publication of discoveries in the scientific or patent literature often lags behind actual discoveries. Therefore, we cannot be certain that we were the first to invent, or the first to file patent applications on, our vaccine candidates or for their uses, or that our vaccine candidates will not infringe patents that are currently issued or that are issued in the future. In the event that a third party has also filed a patent application covering one of our vaccine candidates or a similar invention, our patent application may be regarded as competing applications and may not be approved in the end. Additionally, pending patent applications which have been published can, subject to certain limitations, be later amended in a manner that could cover our products or their use. In order to avoid or settle potential claims with respect to any patent or other intellectual property rights of third parties, we may choose or be required to seek a license from a third party and be required to pay license fees or royalties or both, which could be substantial. These licenses may not be available on acceptable terms, or at all. Even if we were able to obtain a license, the rights may be nonexclusive, which could result in our competitors gaining access to the same intellectual property. Ultimately, we could be prevented from commercializing a vaccine candidate, or be forced, by court order or otherwise, to cease some or all aspects of our business operations, if, as a result of actual or threatened patent or other intellectual property claims, we are unable to enter into licenses on acceptable terms. Further, we could be found liable for significant monetary damages as a result of claims of intellectual property infringement.

Defending against claims of patent infringement, misappropriation of trade secrets or other violations of intellectual property rights could be costly and time consuming, regardless of the outcome. Thus, even if we were to ultimately prevail, or to settle at an early stage, such litigation could burden us with substantial unanticipated.

**Unfavorable outcomes in intellectual property litigation could limit our research and development activities and/or our ability to commercialize our vaccine candidates.**

If third parties successfully assert their intellectual property rights against us, we might be barred from using certain aspects of our technology, or barred from developing and commercializing our vaccine candidates. Prohibitions against using certain technologies, or prohibitions against commercializing our vaccine candidates, could be imposed by a court or by a settlement agreement between us and a plaintiff. In addition, if we are unsuccessful in defending against allegations that we have infringed, misappropriated or otherwise violated patent or other intellectual property rights of others, we may be forced to pay substantial damage awards to the plaintiff. There is inevitable uncertainty in any litigation, including intellectual property litigation. There can be no assurance that we would prevail in any intellectual property litigation, even if the case against us is weak or flawed. If litigation leads to an outcome unfavorable to us, we may be required to obtain a license from the intellectual property owner in order to continue our research and development programs or to commercialize any resulting product. It is possible that the necessary license will not be available to us on commercially acceptable terms, or at all. This may not be technically or commercially feasible, may render our products less competitive, or may delay or prevent the launch of our products to the market. Any of the foregoing could limit our research and development activities, our ability to commercialize one or more vaccine candidates, or both.



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Most of our competitors are larger than we are and have substantially greater resources. They are, therefore, likely to be able to sustain the costs of complex intellectual property litigation longer than we could. In addition, the uncertainties associated with litigation could have a material adverse effect on our ability to raise the funds necessary to conduct our clinical trials, continue our internal research programs, in-license needed technology, or enter into strategic partnerships that would help us bring our vaccine candidates to market.

In addition, any future intellectual property litigation, interference or other administrative proceedings will result in additional expense and distraction of our personnel. An adverse outcome in such litigation or proceedings may expose us or any future strategic partners to loss of our proprietary position, expose us to significant liabilities, or require us to seek licenses that may not be available on commercially acceptable terms, if at all, each of which could have a material adverse effect on our business.

**Intellectual property litigation may lead to unfavorable publicity that harms our reputation and causes the market price of our common stock to decline.**

During the course of any intellectual property litigation, there could be public announcements of the results of hearings, rulings on motions, and other interim proceedings in the litigation. If securities analysts or investors regard these announcements as negative, the perceived value of our vaccines, programs or intellectual property could be diminished. Accordingly, the market price of our Shares may decline. Such announcements could also harm our reputation or the market for our vaccine candidates, which could have a material adverse effect on our business.

**Confidentiality agreements with employees and third parties may not prevent unauthorized disclosure of trade secrets and other proprietary information.**

We rely on employee and third-party confidentiality agreements to safeguard our intellectual property, such as trade secrets, know-how and other proprietary information. In the course of our research and development activities and our business activities, we often rely on confidentiality agreements to protect our proprietary information. Such confidentiality agreements are used, for example, when we collaborated with CROs or potential strategic partners. In addition, our employees is required to sign a confidentiality agreement and invention assignment agreement upon joining our company. We take steps to protect our proprietary information, and our confidentiality agreements and invention assignment agreements are carefully drafted to protect our proprietary interests. Nevertheless, there can be no guarantee that an employee or a third party will not make an unauthorized disclosure of our proprietary confidential information. This might happen intentionally or inadvertently. It is possible that a competitor will make use of such information, and that our competitive position will be compromised, in spite of any legal action we might take against persons making such unauthorized disclosures. In addition, to the extent that our employees, consultants or contractors use intellectual property owned by others in their work for us, disputes may arise as to the rights in related or resulting know-how and inventions.

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Trade secrets are difficult to protect. Although we use reasonable efforts to protect our trade secrets, our employees, consultants, contractors or business partners might intentionally or inadvertently disclose our trade secret information to competitors or our trade secrets may otherwise be misappropriated. Enforcing a claim that a third party illegally obtained and is using any of our trade secrets is expensive and time consuming, and the outcome is unpredictable.

We sometimes engage individuals or research institutions to conduct research relevant to our business. The ability of these individuals or research institutions to publish or otherwise publicly disclose data and other information generated during the course of their research is subject to certain contractual limitations. These contractual provisions may be insufficient or inadequate to protect our confidential information. If we do not apply for patent protection prior to such publication, or if we cannot otherwise maintain the confidentiality of our proprietary technology and other confidential information, then our ability to obtain patent protection or to protect our trade secret information may be jeopardized, which could adversely affect our business.

**Intellectual property rights do not necessarily protect us from all potential threats to our competitive advantage.**

The degree of future protection afforded by our intellectual property rights is uncertain because intellectual property rights have limitations, and may not adequately protect our business, or permit us to maintain our competitive advantage. The following examples are illustrative:

- others may be able to make compounds that are similar to our vaccine candidates but that are not covered by the claims of the patents that we own or have exclusively licensed;
- we might not have been the first to make the inventions covered by the issued patents or pending patent applications that we own or may in the future exclusively license, which could result in the patent applications not issuing or being invalidated after issuing;
- we might not have been the first to file patent applications covering certain of our inventions, which could result in the patent applications not issuing or being invalidated after issuing;
- others may independently develop similar or alternative technologies or duplicate any of our technologies without infringing our intellectual property rights;
- it is possible that our pending patent applications will not lead to issued patents;
- issued patents that we own or have exclusively licensed may not provide us with any competitive advantages, or may be held invalid or unenforceable, as a result of legal challenges by our competitors;

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- we may obtain patents for certain compounds many years before we receive NDA approval for vaccines containing such compounds, and because patents have a limited life, which may begin to run prior to the commercial sale of the related vaccines, the commercial value of our patents may be limited;
- our competitors might conduct research and development activities in countries where we do not have patent rights and then use the information learned from such activities to develop competitive vaccines for commercialization in our major markets;
- we may fail to develop additional proprietary technologies that are patentable;
- we may fail to apply for or obtain adequate intellectual property protection in all the jurisdictions in which we operate; and
- the patents of others may have an adverse effect on our business, for example by preventing us from commercializing one or more of our vaccine candidates for one or more indications.

Any of the aforementioned threats to our competitive advantage could have a material adverse effect on our business.

### RISKS RELATING TO OUR OPERATIONS

**Because some of our vaccines are intended to prevent diseases of major public health concerns, we are at risk of governmental actions detrimental to our business, such as product seizure, resumed price controls and additional regulations.**

In response to a pandemic or the perceived risk of a pandemic, governments in China and other countries may take actions to protect their citizens that could affect our ability to control the production and export of pandemic vaccines or otherwise impose burdensome regulations on our business. Governments in China and other countries may also grant licenses to allow competitors to manufacture products that are protected by our patents, or use our technologies developed with funds from government agencies or resume its price control over any vaccines although such control were previously removed in such countries.

**We may be unable to attract and retain senior management and retain scientific employees.**

Our success depends in part on our continued ability to attract, retain and motivate highly qualified management, clinical, and scientific personnel. We are highly dependent upon our Founders team and senior management, including Dr. Yu, Dr. Chao, Dr. Zhu, Dr. Qiu and Dr. Mao, as well as other employees and consultants. The loss of services of any of these individuals or one or more of our other members of senior management could delay or prevent the successful development of our vaccine candidates.

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## RISK FACTORS

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Although we have not historically experienced unique difficulties attracting and retaining qualified employees, we could experience such problems in the future for various reasons. Competition for qualified employees in our industry is intense and the pool of qualified candidates is limited. We may not be able to retain the services of our senior management or key scientific personnel, or attract and retain experienced senior management or key scientific personnel in the future. If one or more of our senior management or other key scientific personnel are unable or unwilling to continue in their present positions or joins a competitor or forms a competing company, we may not be able to replace them in a timely manner or at all, and our drug development progress may be disrupted as a result, which will have a material and adverse effect on our business and results of operations. In addition, we will need to hire additional employees as we expand our commercialization and manufacturing teams. We may not be able to attract and retain qualified employees on acceptable terms.

**We may encounter difficulties in managing our growth and expanding our operations successfully.**

As we seek to advance our vaccine candidates through clinical trials, we will need to expand our development, regulatory, manufacturing, marketing and sales capabilities or contract with third parties to provide these capabilities for us. As our operations expand, we expect that we will need to manage additional relationships with various strategic partners, suppliers and other third parties. Future growth will impose significant added responsibilities on members of management. Our future financial performance and our ability to commercialize our vaccine candidates and to compete effectively will depend, in part, on our ability to manage any future growth effectively. To that end, we must be able to manage our development efforts and clinical trials effectively and hire, train and integrate additional management, administrative and sales and marketing personnel. We may not be able to accomplish these tasks, and our failure to accomplish any of them could prevent us from successfully growing our company.

**We may be subject to product liability lawsuits.**

We face an inherent risk of product liability caused by our vaccines. Any such product liability claims may include allegations of defects in manufacturing, defects in design, improper, insufficient or improper labelling of products, insufficient or misleading disclosures of side effects or dangers inherent in the product, negligence, strict liability and a breach of warranties. If we cannot successfully defend ourselves against product liability claims, we may incur substantial liabilities or be required to limit commercialization of our vaccine candidates. Even successful defense would require significant financial and management resources. There is also risk that third parties we have agreed to indemnify could incur liability. Regardless of the merits or eventual outcome, liability claims may result in:

- decreased demand for our vaccine candidates or any resulting products;
- injury to our reputation;
- withdrawal of clinical trial participants;

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- costs to defend the related litigation;
- a diversion of management's time and our resources;
- substantial monetary awards to trial subjects;
- product recalls, withdrawals or labeling, marketing or promotional restrictions;
- loss of revenue;
- the inability to commercialize our vaccine candidates; and
- a decline in our Share price.

If we are unable to defend ourselves against such claims in the PRC, among other things, we may be subject to civil liability for adverse events or other losses caused by our products and to criminal liability and the revocation of our business licenses if our products are found to be defective. In addition, we may be required to recall the relevant products, suspend sales or cease sales. Even if we are able to successfully defend ourselves against any such product liability claims, doing so may require significant financial resources and the time and attention of our management.

Existing PRC laws and administrative regulations do not require us to, nor do we, maintain liability insurance to cover product liability claims. Any product liability insurance for clinical trials, when obtained, may be prohibitively expensive, or may not fully cover our potential liabilities. Our inability to obtain and retain sufficient product liability insurance at an acceptable cost to protect against potential product liability claims could prevent or inhibit the commercialization of vaccine candidates we develop. Although we maintain such insurance, any claim that may be brought against us could result in a court judgment or settlement in an amount that is not covered, in whole or in part, by our insurance or that is in excess of the limits of our insurance coverage. Our insurance policies also have various exclusions, and we may be subject to a product liability claim for which we have no coverage. We will have to pay any amounts awarded by a court or negotiated in a settlement that exceed our coverage limitations or that are not covered by our insurance, and we may not have, or be able to obtain, sufficient capital to pay such amounts.

### **We may be involved in claims, disputes, litigation, arbitration or other legal proceedings in the ordinary course of business.**

From time to time, we may be involved in claims, disputes and legal proceedings in our ordinary course of business. These may concern issues relating to, among others, product liability, environmental matters, breach of contract, employment or labor disputes and infringement of intellectual property rights. As of the Latest Practicable Date, we were not involved in any litigations and legal proceedings that may materially affect our research and development of our vaccine candidates, business and results of operations. Any claims,

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disputes or legal proceedings initiated by us or brought against us, with or without merit, may result in substantial costs and diversion of resources, and if we are unsuccessful, could materially harm our reputation. Furthermore, claims, disputes or legal proceedings against us may be due to defective supplies sold to us by our suppliers, who may not be able to indemnify us in a timely manner, or at all, for any costs that we incur as a result of such claims, disputes and legal proceedings.

**Our Controlling Shareholders have substantial influence over our Company and their interests may not be aligned with the interests of our other Shareholders.**

Our Controlling Shareholders have substantial influence over our business, including matters relating to our management, policies and decisions regarding acquisitions, mergers, expansion plans, consolidations and sales of all or substantially all of our assets, election of Directors and other significant corporate actions. Immediately after completion of the Global Offering, assuming the Over-allotment Option is not exercised, our Controlling Shareholders will hold (including direct and indirect shareholdings) approximately 31.71% of the issued share capital in our Company. This concentration of ownership may discourage, delay or prevent a change in control of our Company, which could deprive other Shareholders of an opportunity to receive a premium for their Shares as part of a sale of our Company and might reduce the price of our Shares. These events may occur even if they are opposed by our other Shareholders. In addition, the interests of our Controlling Shareholders may differ from the interests of our other Shareholders. It is possible that our Controlling Shareholders may exercise its substantial influence over us and cause us to enter into transactions or take, or fail to take, actions or make decisions that conflict with the best interests of our other Shareholders.

**We have limited insurance coverage, and any claims beyond our insurance coverage may result in our incurring substantial costs and a diversion of resources.**

We maintain insurance policies that are required under PRC laws and administrative regulations as well as based on our assessment of our operational needs and industry practice. In line with industry practice in the PRC, we have elected not to maintain certain types of insurances, such as business interruption insurance or key man insurance. Our insurance coverage may be insufficient to cover any claim for product liability, damage to our fixed assets or employee injuries. Any liability or damage to, or caused by, our facilities or our personnel beyond our insurance coverage may result in our incurring substantial costs and a diversion of resources.

**Counterfeits of our products and illegal vaccines could negatively affect our sales and our reputation and expose us to liability claims.**

Certain vaccines distributed or sold may be manufactured without proper licenses or approvals, or are fraudulently mislabeled with respect to their content or manufacturers. These products are generally referred to as counterfeit vaccine products. The counterfeit vaccine product control and enforcement system, particularly in developing markets such as the PRC, may be inadequate to discourage or eliminate the manufacturing and sale of counterfeit vaccine

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products imitating our products. Since counterfeit vaccine products in many cases have very similar appearances compared with the authentic vaccine products but are generally sold at lower prices, counterfeits of our products can quickly erode our sales volume of the relevant products. Moreover, counterfeit products may or may not have the same chemical composition as our products do, which may make them less effective than our products, entirely ineffective or more likely to cause severe adverse side effects. This could expose us to negative publicity, reputational damage, fines and other administrative penalties, and may even result in litigation against us. The existence and prevalence of counterfeit vaccine products, products of inferior quality and other unqualified products in recent years from time to time may reinforce the negative image in general of all pharmaceutical products manufactured in China among consumers, and may harm the reputation of companies like us.

In addition, there may be vaccine illegally imported into the PRC market, often at a lower price. These vaccines may compete against and lower demand for vaccines legally manufactured and sold in China. As a result of these factors, the continued proliferation of counterfeit vaccine products and illegal vaccines in the market could affect our sales and reputation and expose us to liability claims.

**We benefit from certain preferential tax and financial incentives, the expiration of or changes to which could adversely affect our profitability.**

We currently benefit from certain preferential tax treatments, as well as tax concessions in relation to our research and development costs. The Company was qualified as High and New Technology Enterprises since 2016, and as a result, enjoys a preferential PRC income tax rate of 15% during the Track Record Period, compared with the 25% income tax rate generally applicable to PRC tax resident enterprises under the EIT Law. As disclosed in Note 12 to the Accountant's Report set out in Appendix I of this Prospectus, the impact of applying the lower tax rate was RMB5.0 million, RMB6.4 million and RMB13.8 million for the years ended December 31, 2016, 2017 and 2018, respectively. That being said, during the Track Record Period, we had tax losses and therefore did not have income tax obligations. However, we may have income tax obligations in the future as we gradually commercialize the vaccine candidates in our product pipeline. The High and New Technology Enterprise accreditation is for a three-year period until 2018, which we plan to renew in due course. However, if we fail to renew our qualification as High and New Technology Enterprises, the applicable enterprise income tax rate would increase to 25%, which may have a material adverse effect on our financial condition and results of operations. In addition, we were eligible for deductions for research and development expenses during the Track Record Period, which would be deducted from our income tax expenses if we had income tax obligations. As disclosed in Note 12 to the Accountant's Report set out in Appendix I of this Prospectus, the super deduction of research and development expenses was RMB2.7 million, RMB3.8 million and RMB9.6 million for the years ended December 31, 2016, 2017 and 2018, respectively. We cannot guarantee that we will continue to be eligible for such deductions in the future and we may not be able to enjoy such deductions when we have income tax obligations.



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In addition, the current or future preferential tax treatments, tax concessions, tax allowances and financial incentives applicable to us may be changed, terminated, or otherwise become unavailable due to many factors, including changes in government policy or administrative decisions by relevant government authorities. For example, on November 27, 2014, the State Council issued the Notice on Cleaning Up and Regulating Taxation and Other Preferential Policies (《國務院關於清理規範稅收等優惠政策的通知》) (the “**Preferential Policies Notice**”), which required local governments and government agencies to review and clean up the preferential policies they have promulgated, and to abolish preferential policies that are in violation of state laws and regulations. On May 10, 2015, the State Council issued a notice suspending the clean-up of preferential policies set out in the Preferential Policies Notice until further notice. For the years ended December 31, 2016, 2017 and 2018, we recorded other income from government grants in the amounts of RMB8.0 million, RMB9.0 million and RMB5.8 million, respectively. Due to the Preferential Policies Notice and further potential changes in government policies, we cannot be certain of the level of government grants we will receive in the future. Our post-tax profitability and cash flows may be adversely affected as a result of one or more of these or other factors.

### **Our intangible assets and financial assets at amortized cost may become impaired.**

As of December 31, 2016, 2017 and 2018, we had intangible assets of nil, RMB21.4 million and RMB32.3 million, respectively, which primarily consisted of capitalised clinical trial expenses. After initial recognition, we determine whether intangible assets are impaired on an annual basis or more frequently if events or changes in circumstance indicate that the carrying amount of these assets exceeds its recoverable amount. As of the same dates, we had financial assets at amortized cost of RMB94.0 million, RMB270.0 million and RMB140.0 million, respectively, representing the wealth management products with fixed rates we purchased. After initial recognition, the financial assets are subject to an expected credit loss assessment. We may have to charge impairment for such financial assets at each reporting date if its credit risk has increased significantly since initial recognition. As a result, our evaluations in the future on intangible assets and financial assets at amortized cost may result in material impairment charges that would have a material impact on our results of operations and potentially our share price.

### **Fair value changes for our financial assets measured at fair value through profit or loss may materially affect our financial condition and results of operations.**

During the Track Record Period and up to the Latest Practicable Date, we have purchased wealth management products with floating rates, which were recorded as financial assets at fair value through profit or loss. The fair value of such financial assets is estimated by discounting the future contractual cash flows at the market interest rate available to the Group for similar financial instruments. The estimation of our financial assets at fair value through profit or loss primarily uses unobservable inputs, such as the expected rate of return of the wealth management products. This requires our management to make estimates about expected future cash flows, credit risk, volatility and discount rates, and hence they are subject to uncertainty. As a result, such treatment of carrying amounts of our financial assets measured at fair value through profit or loss may cause significant volatility in or materially and adversely affect our period-to-period earnings, financial condition and results of operations.



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**The vaccine industry in the PRC is still under development, and any material unwanted events connected with vaccination safety and efficacy may erode public confidence in vaccine products and have an adverse effect on our business and financial conditions.**

China's vaccine market is a developing market and expect to be driven by, among others, increasing availability of innovation vaccines and fast-growing needs from different age groups. In particular, the public in China continues to demand safe and high-quality vaccines that can provide effective protection on vaccinated population. Any material unwanted events questioning vaccination safety and efficacy, such as massive serious adverse events, vaccine recalls or temporary suspension of any vaccines, failure in cold chain or other supply chain system, counterfeit or other inferior products, may have the potential to erode public confidence in all vaccine products and developers, manufacturers and authorities delivering them. For example, in 2016, vaccine sales accidents were reported in Shandong province due to failure to comply with cold chain regulations and distribution policies, which adversely impacted public confidence in immunizations and slowed the market growth pace that year. More recently in July 2018, a drug manufacturer in Jilin province was reported to use expired materials and falsified inspection records and production dates for rabies vaccinations, and produced ineffective DTP vaccines. These reports have eroded public confidence in domestic vaccines and the reputation of domestic vaccine manufacturers. In addition, we and other vaccine manufacturers may conduct research and development of vaccines on animals. We cannot guarantee that there would not be social backlash on inhumane animal testing practices in vaccine development, which may negatively impact the public perception of our industry. Any future negative publicity may lead to a slowdown of the overall development and harm the reputation of the PRC vaccine industry, and in turn reduce the demand of our vaccine products and cause adverse effect on our business and financial results. In addition, we cannot assure you that there will be no future negative publicity in the PRC vaccine industry related to vaccine safety and efficacy, which may continue have a material adverse impact on our business and financial conditions.

**If we fail to comply with environmental, health and safety laws and regulations, we could be subject to fines or penalties or incur costs that could have a material adverse effect on the success of our business.**

We are subject to numerous environmental, health and safety laws and regulations, including those governing laboratory procedures and the handling, use, storage, treatment and disposal of hazardous materials and wastes. Our operations may involve the use of hazardous and flammable materials, including chemicals. Our operations may also produce hazardous waste products. We cannot eliminate the risk of contamination or injury from these materials. In the event of contamination or injury resulting from our use of hazardous materials or our or third parties' disposal of hazardous materials, we could be held liable for any resulting damages, and any liability could exceed our resources. We also could incur significant costs associated with civil or criminal fines and penalties.

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We may incur substantial costs in order to comply with current or future environmental, health and safety laws and regulations. These current or future laws and regulations may impair our research, development or production efforts. Failure to comply with these laws and regulations also may result in substantial fines, penalties or other sanctions.

Although we maintain injury insurance for all employees as required by applicable laws and regulations to cover costs and expenses incurred due to work-related injuries to our employees, and we purchase accident insurance for employees exposed to higher risks to injuries, such insurances may not provide adequate coverage against potential liabilities. We do not maintain insurance for environmental liability or toxic tort claims that may be asserted against us in connection with our storage or disposal of hazardous or radioactive materials.

**We could be adversely affected by violations of anti-bribery laws.**

We are subject to anti-bribery laws in China that generally prohibits companies and their intermediaries from making payments to government officials for the purpose of obtaining or retaining business or securing any other improper advantage. Although we have policies and procedures designed to ensure that we, our employees and our agents comply with anti-bribery laws, there is no assurance that such policies or procedures will prevent our agents, employees and intermediaries from engaging in bribery activities we acquire. Failure to comply with anti-bribery laws could disrupt our business and lead to severe criminal and civil penalties, including imprisonment, criminal and civil fines, loss of our export licenses, suspension of our ability to do business with the government authorities and CDCs for our products sales. Other remedial measures could include further changes or enhancements to our procedures, policies, and controls and potential personnel changes and/or disciplinary actions, any of which could have a material adverse effect on our business, financial condition, results of operations and liquidity. We could also be adversely affected by any allegation that we violated such laws.

**Any failure to comply with applicable laws and regulations and industry standards or obtain various licenses and permits or any change to the applicable laws and regulations could harm our reputation and business, results of operations and prospects.**

A number of governmental agencies or industry regulatory bodies in China impose strict rules, regulations and industry standards governing pharmaceutical and biotechnology research and development activities, which apply to us. In addition, we are also subject to laws and regulations with respect to our overall operations. We may be unable to comply with such laws and regulations as they continue to change and evolve, or due to differences in national, provincial or local laws and regulations, or their implementation or enforcement. Our failure to comply with such regulations could result in the termination of ongoing research, administrative penalties imposed by regulatory bodies or the disqualification of data for submission to regulatory authorities. These could harm our reputation, prospects for future work and operating results.

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**Our reputation is important to our business success. Negative publicity may adversely affect our reputation and business prospect.**

Any negative publicity concerning us, our affiliates or any entity that shares the “CanSinoBio” name, even if untrue, could adversely affect our reputation and business prospects. We cannot assure you that negative publicities about us or any of our affiliates or any entity that shares the “CanSinoBio” name would not damage our brand image or have a material adverse effect on our business, results of operations and financial condition.

**Our property valuation is based on certain assumptions which, by their nature, are subjective and uncertain and may materially differ from actual results.**

Valuations of our properties as of December 31, 2018 prepared by Duff & Phelps, an independent property valuer, are set forth in the Property Valuation Report set out as Appendix III to this Prospectus. The valuations are made based on assumptions which, by their nature, are subjective and uncertain and may differ from actual results. In addition, unforeseeable changes in general and local economic conditions or other factors beyond our control may affect the value of our properties. As a result, the valuation of our properties may differ materially from the price we could receive in an actual sale of the properties in the market and should not be taken as their actual realizable value or an estimation of their realizable value.

### **RISKS RELATING TO DOING BUSINESS IN CHINA**

**China’s economic, political and social conditions, government policies may continue to affect our business.**

A substantial amount of our businesses, assets, operations and revenues are located in or derived from our operations in China and, as a result, our business, financial condition and results of operations are subject, to a significant degree, to the economic, political, social and regulatory environment in China.

The PRC economy differs from the economies of developed countries in many respects, including, among others, the degree of government involvement, investment control, level of economic development, growth rate, foreign exchange controls and resource allocation. Since the 1970’s, the PRC government has implemented many economic and social reform measures. China’s transition to a market-oriented economy is an on-going process. A substantial portion of productive assets in China, however, is still owned by the PRC government. The PRC government also exercises significant control over the economic growth of the PRC through means such as allocating resources, controlling payments of foreign-currency denominated obligations, setting monetary policy and providing preferential treatment to particular industries or companies. In recent years, the PRC government has implemented measures emphasizing the utilization of market forces, the reduction of state ownership of productive assets and the establishment of sound corporate governance practices in business enterprises. Some of these measures benefit the overall PRC economy, but may materially and adversely affect us. China has experienced rapid economic growth over the past few decades; however,

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as China transitions from a fixed asset investment-based to a consumption-based economy, its annual GDP growth rate has declined from 7.8% in 2013 to 6.8% in 2017, according to the National Bureau of Statistics of China (中華人民共和國國家統計局). There is no assurance that future growth will be sustained at similar rates or at all. Our business, financial position, results of operations and prospects may be materially and adversely affected by the PRC government's economic, political and social policies, including those to our industry.

**The legal protections available to you under the PRC legal system may be limited.**

We are incorporated under the laws of the PRC. The PRC legal system is based on written statutes. Prior court decisions may be adduced for reference but have limited precedential value. Since the late 1970s, the PRC government has promulgated laws and regulations dealing with such economic matters as the issuance and trading of securities, shareholders' rights, foreign investment, corporate organization and governance, commerce, taxation and trade, with a view towards developing a comprehensive system of commercial law. However, as these laws and regulations are relatively new, the effect of these laws and regulations on the rights and obligations of the parties involved may involve uncertainty. As a result, the legal protections available to you under the PRC legal system may be limited.

Our operations in the PRC are subject to PRC regulations governing PRC companies. These regulations contain provisions that are required to be included in the articles of association of PRC companies and are intended to regulate the internal affairs of these companies. The PRC Company Law and regulations, in general, and the provisions for the protection of Shareholders' rights and access to information, in particular, may be considered less developed than those applicable to companies incorporated in Hong Kong, the United States and other developed countries or regions. In addition, PRC laws, rules and regulations applicable to companies listed overseas do not distinguish between minority and controlling shareholders in terms of their rights and protections. As such, our minority shareholders may not have the same protections afforded to them by companies incorporated under the laws of the United States and certain other jurisdictions.

**You may experience difficulties in effecting service of legal process and enforcing judgments against us and our management.**

We are a joint stock company incorporated under the laws of the PRC with limited liability, and a substantial amount of our assets are located in the PRC. In addition, a majority of our Directors and Supervisors and all of our senior management personnel reside within the PRC, and substantially all their assets are located within the PRC. As a result, it may not be possible to effect service of process within the United States or elsewhere outside the PRC upon us or most of our Directors, Supervisors and senior management personnel. Furthermore, the PRC does not have treaties providing for the reciprocal enforcement of judgments of courts with the United States, the United Kingdom, Japan or many other countries. In addition, Hong Kong has no arrangement for the reciprocal enforcement of judgments with the United States. As a result, recognition and enforcement in the PRC or Hong Kong of judgments of a court obtained in the United States and any of the other jurisdictions mentioned above may be difficult or impossible.

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On July 14, 2006, the Supreme People's Court of the PRC and the government of the Hong Kong Special Administrative Region entered into the Arrangement on Reciprocal Recognition and Enforcement of Judgments in Civil and Commercial Matters by Courts of the Mainland and the Hong Kong Special Administration Region Pursuant to Choice of Court Agreements between Parties Concerned (《關於內地與香港特別行政區法院相互認可和執行當事人協議管轄的民商事案件判決的安排》) (the “**2006 Arrangement**”). Under the 2006 Arrangement, where any designated PRC court or any designated Hong Kong court has made an enforceable final judgment requiring payment of money in a civil or commercial case pursuant to a choice of court agreement in writing, any party concerned may apply to the relevant PRC court or Hong Kong court for recognition and enforcement of the judgment. It is not possible to enforce a judgment rendered by a Hong Kong court in the PRC if the parties in dispute have not agreed to enter into a choice of court agreement in writing. In addition, the 2006 Arrangement has expressly provided for “enforceable final judgement,” “specific legal relationship” and “written form.” A final judgement that does not comply with the 2006 Arrangement may not be recognized and enforced in a PRC court.

On January 18, 2019, the Supreme People's Court of the PRC and the government of the Hong Kong Special Administrative Region entered into the Arrangement on Reciprocal Recognition and Enforcement of Judgments in Civil and Commercial Matters by the Courts of the Mainland and of the Hong Kong Special Administrative Region (《關於內地與香港特別行政區法院相互認可和執行民商事案件判決的安排》) (the “**2019 Arrangement**”). Under the 2019 Arrangement, any party concerned may apply to the relevant PRC court or Hong Kong court for recognition and enforcement of the effective judgments in civil and commercial cases subject to the conditions set forth in the 2019 Arrangement. Although the 2019 Arrangement has been signed, it remains unclear when it will come into effect and the outcome and effectiveness of any action brought under the 2019 Arrangement may still be uncertain. We cannot assure you that an effective judgment that complies with the 2019 Arrangement can be recognized and enforced in a PRC court.

**We are subject to PRC governmental controls on currency conversion, and the fluctuation of the Renminbi exchange rate may materially and adversely affect our business and our ability to pay dividends to holders of H shares.**

We expect that a substantial majority of our revenue will be denominated in Renminbi, which is currently not a fully freely convertible currency. A portion of our revenues may be converted into other currencies in order to meet our foreign currency obligations. For example, we need to obtain foreign currency to make payments of declared dividends, if any, on our H Shares.

Under China's existing laws and regulations on foreign exchange, following the completion of the Global Offering, we will be able to make dividend payments in foreign currencies by complying with certain procedural requirements and without prior approval from SAFE. However, in the future, the PRC government may, at its discretion, take measures to restrict access to foreign currencies for capital account and current account transactions under certain circumstances. As a result, we may not be able to pay dividends in foreign currencies to holders of our H Shares.

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The value of the Renminbi against the U.S. dollar and other currencies fluctuates from time to time and is affected by a number of factors, such as changes in China's and international political and economic conditions and the fiscal and foreign exchange policies prescribed by the PRC government. From 1994 until July 2005, the conversion of the Renminbi into foreign currencies in the PRC, including the Hong Kong dollar and U.S. dollar, had been based on fixed rates set by the PBOC. On July 21, 2005, the PRC government changed its decade-old policy of pegging the value of the Renminbi to the U.S. dollar where the Renminbi is permitted to fluctuate in a regulated band that is based on reference to a basket of currencies determined by the PBOC. On June 19, 2010, the PBOC announced that it intends to further reform the Renminbi exchange rate regime by enhancing the flexibility of the Renminbi exchange rate. Following this announcement, the Renminbi had appreciated from approximately RMB6.83 per U.S. dollar to RMB6.12 per U.S. dollar as of June 15, 2015. On August 11, 2015, PBOC further enlarged the floating band for trading prices in the interbank spot exchange market of Renminbi against the U.S. dollar to 2.0% around the closing price in the previous trading session, and the Renminbi depreciated against the U.S. dollar by approximately 1.9% as compared to August 10, 2015, and further depreciated nearly 1.6% on the next day. On November 30, 2015, the Executive Board of the International Monetary Fund completed the regular five-year review of the basket of currencies that make up the special drawing rights and decided that with effect from October 1, 2016, the Renminbi is determined to be a freely useable currency and will be included in the special drawing rights basket as a fifth currency. With the development of foreign exchange market and progress towards interest rate liberalization and Renminbi internationalization, the PRC government may in the future announce further reforms to the exchange rate system, and we cannot assure you that the Renminbi will not appreciate or depreciate significantly in value against the Hong Kong dollar or the U.S. dollar in the future.

The proceeds from the Global Offering will be received in Hong Kong dollars. As a result, any appreciation of the Renminbi against the U.S. dollar, the Hong Kong dollar or any other foreign currencies may result in the decrease in the value of our proceeds from the Global Offering. Conversely, any depreciation of the Renminbi may adversely affect the value of, and any dividends payable on, our H Shares in foreign currency. In addition, there are limited instruments available for us to reduce our foreign currency risk exposure at reasonable costs. Any of these factors could materially and adversely affect our business, financial condition, results of operations and prospects, and could reduce the value of, and dividends payable on, our H Shares in foreign currency terms.

### **Holders of H Shares may be subject to PRC taxations.**

Under the applicable PRC tax laws, both the dividends we pay to non-PRC resident individual holders of H shares (“**non-resident individual holders**”), and gains realised through the sale or transfer by other means of H shares by such shareholders, are subject to PRC individual income tax at a rate of 20%, unless reduced by the applicable tax treaties or arrangements.



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Under applicable PRC tax laws, the dividends we pay to, and gains realised through the sale or transfer by other means of H shares by, non-PRC resident enterprise holders of H shares (“**non-resident enterprise holders**”) are both subject to PRC enterprise income tax at a rate of 10%, unless reduced by applicable tax treaties or arrangements. Pursuant to the Arrangements between the Mainland of China and the Hong Kong Special Administrative Region for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Incomes (《內地和香港特別行政區關於對所得避免雙重徵稅和防止偷漏稅的安排》) dated August 21, 2006, any non-resident enterprise registered in Hong Kong that holds directly at least 25% of the shares of our Company shall pay Enterprise Income Tax for the dividends declared and paid by us at a tax rate of 5%.

Pursuant to the Circular on Questions Concerning Tax on the Profits Earned by Foreign Invested Enterprises, Foreign Enterprises and Individual Foreigners from the Transfer of Shares (Equity Interests) and on Dividend Income (《關於外商投資企業、外國企業和外籍個人取得股票(股權)轉讓收益和股息所得稅收問題的通知》) issued by the State Administration of Taxation, non-resident individual holders were temporarily exempted from PRC individual income tax for the dividends or bonuses paid by issuers of H shares. However, such circular was repealed by the Announcement on the List of Fully or Partially Invalid and Repealed Tax Regulatory Documents (《關於公布全文失效廢止、部分條款失效廢止的稅收規範性文件目錄的公告》) dated January 4, 2011.

For non-resident individual holders, gains realized through the transfer of properties are normally subject to PRC individual income tax at a rate of 20%. However, according to the Circular of the Ministry of Finance and the State Administration of Taxation on Issues Concerning Individual Income Tax Policies (《財政部、國家稅務總局關於個人所得稅若干政策問題的通知》), income received by individual foreigners from dividends and bonuses of a foreign-invested enterprise are exempt from individual income tax for the time being. According to the Circular Declaring that Individual Income Tax Continues to Be Exempted over Individual Income from Transfer of Shares issued by the MOF and the SAT (《關於個人轉讓股票所得繼續暫免徵收個人所得稅的通知》) effective as of March 30, 1998, income from individuals’ transfer of stocks of listed companies continued to be temporarily exempted from individual income tax. On February 3, 2013, the State Council approved and promulgated the Notice of Suggestions to Deepen the Reform of System of Income Distribution (《國務院轉批發展改革委等部門關於深化收入分配制度改革若干意見的通知》). On February 8, 2013, the General Office of the State Council promulgated the Circular Concerning Allocation of Key Works to Deepen the Reform of System of Income Distribution (《國務院辦公廳關於深化收入分配制度改革重點工作分工的通知》). According to these two documents, the PRC government is planning to cancel foreign individuals’ tax exemption for dividends obtained from foreign-invested enterprises, and the Ministry of Finance and the State Administration of Taxation should be responsible for making and implementing details of such plan. However, relevant implementation rules or regulations have not been promulgated by the Ministry of Finance and the State Administration of Taxation.

Considering these uncertainties, non-resident holders of our H Shares should be aware that they may be obligated to pay PRC income tax on the dividends and gains realised through sales or transfers of the H Shares. Please refer to “Appendix IV – Taxation and Foreign Exchange.”

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## RISK FACTORS

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**Any possible conversion of our Unlisted Shares, including Domestic Shares and Unlisted Foreign Shares, into H Shares in the future could increase the supply of our H Shares in the market and negatively impact the market price of our H Shares.**

Subject to the approval of the State Council securities regulatory authority, all of our Unlisted Shares may be converted into H Shares, and such converted Shares may be listed or traded on an overseas stock exchange. Any listing or trading of the converted Shares on an overseas stock exchange shall also comply with the regulatory procedures, rules and requirements of such stock exchange. No class shareholder voting is required for the listing and trading of the converted Shares on an overseas stock exchange. However, the PRC Company Law provides that in relation to the public offering of a company, the shares of that company which are issued prior to the public offering shall not be transferred within one year from the date of the listing. Therefore, upon obtaining the requisite approval, shares currently held on our Domestic Share register and/or the Unlisted Foreign Share register may be traded, after the conversion, in the form of H Shares on the Stock Exchange after one year of the Global Offering, which could further increase the supply of our H Shares in the market and could negatively impact the market price of our H Shares.

### **RISKS RELATING TO THE GLOBAL OFFERING**

**An active trading market for our H Shares may not develop.**

Prior to the Global Offering, there was no public market for our H Shares. We cannot assure you that a public market for our H Shares with adequate liquidity will develop and be sustained following the completion of Global Offering. In addition, the Offer Price of our H Shares may not be indicative of the market price of our H Shares following the completion of the Global Offering. If an active public market for our H Shares does not develop following the completion of the Global Offering, the market price and liquidity of our H Shares could be materially and adversely affected.

**The market price and trading volume of our H Shares may be volatile, which could result in substantial losses for investors who purchase our H Shares in the Global Offering.**

The market price and trading volume of our H Shares may be highly volatile. Several factors, some of which are beyond our control, such as variations in our revenue, earnings and cash flow, strategic alliances or acquisitions, the addition or departure of key personnel, litigation, the removal of the restrictions on H share transactions or volatility in market prices and changes in the demand for our products, could cause large and sudden changes to the market price and trading volume at which our H Shares will trade. The Stock Exchange and other securities markets have, from time to time, experienced significant price and trading volume volatility that are not related to the operating performance of any particular company. This volatility may also materially and adversely affect the market price of our H Shares.



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## RISK FACTORS

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**Since there will be a gap of several days between pricing and trading of our H Shares, holders of our H Shares are subject to the risk that the price of our H Shares could fall during the period before trading of our H Shares begins.**

The Offer Price of our H Shares is expected to be determined on the Price Determination Date. However, our H Shares will not commence trading on the Stock Exchange until they are delivered, which is expected to be several business days after the pricing date. As a result, investors may not be able to sell or deal in our H Shares during that period. Accordingly, holders of our H Shares are subject to the risk that the price of our H Shares could fall before trading begins as a result of adverse market conditions or other adverse developments, that could occur between the time of sale and the time trading begins.

**A future significant increase or perceived significant increase in the supply of our H Shares in public markets could cause the market price of our H Shares to decrease significantly, and/or dilute shareholdings of holders of H Shares.**

The market price of our H Shares could decline as a result of future sales of a substantial number of our H Shares or other securities relating to our H Shares in the public market, or the issuance of new shares or other securities, or the perception that such sales or issuances may occur. Future sales, or anticipated sales, of substantial amounts of our securities, including any future offerings, could also materially and adversely affect our ability to raise capital at a specific time and on terms favorable to us. In addition, our Shareholders may experience dilution in their holdings if we issue more securities in the future. New shares or shares-linked securities issued by us may also confer rights and privileges that take priority over those conferred by the H Shares.

**Payment of dividends is subject to restrictions under the PRC law and there is no assurance whether and when we will pay dividends.**

No dividend (nil) has been paid or declared by the Company during the Track Record Period. Under the applicable PRC laws, the payment of dividends may be subject to certain limitations. The calculation of our profit under applicable accounting standards differs in certain respects from the calculation under HKFRS. As a result, we may not be able to pay a dividend in a given year even if we were profitable as determined under HKFRS. Our Board may declare dividends in the future after taking into account our results of operations, financial condition, cash requirements and availability and other factors as it may deem relevant at such time. Any declaration and payment as well as the amount of dividends will be subject to our constitutional documents and the PRC laws and regulations and requires approval at our shareholders' meeting. No dividend shall be declared or payable except out of our profits and reserves lawfully available for distribution.

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## RISK FACTORS

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**Certain statistics contained in this Prospectus are derived from third-party reports and publicly available official sources and they may not be reliable.**

Certain statistics contained in this Prospectus relating to China, the PRC economy and the industry in which we operate have been derived from various official government publications or other third-party reports. We have taken reasonable care in the reproduction or extraction of the official government publications or other third-party reports for the purpose of disclosure in this Prospectus, however, we cannot guarantee the quality or reliability of such source materials. They have not been prepared or independently verified by us, the Underwriters or any of their respective affiliates or advisers and, therefore, we make no representation as to the accuracy of such statistics, which may not be consistent with other information compiled within or outside the PRC. Due to possibly flawed or ineffective collection methods or discrepancies between published information and market practice, such statistics in this Prospectus may be inaccurate or may not be comparable to statistics produced with respect to other economies. Further, there is no assurance that they are stated or compiled on the same basis or with the same degree of accuracy as the case may be in other jurisdictions. In all cases, investors should give consideration as to how much weight or importance they should attach to or place on such facts.

**Investors should read the entire Prospectus carefully and should not consider any particular statements in this Prospectus or in published media reports without carefully considering the risks and other information contained in this Prospectus.**

Prior to the publication of this Prospectus, there has been coverage in the media regarding us and the Global Offering, which contained among other things, certain financial information, projections, valuations and other forward-looking information about us and the Global Offering. We have not authorized the disclosure of any such information in the press or media and do not accept any responsibility for the accuracy or completeness of such media coverage or forward-looking statements. We make no representation as to the appropriateness, accuracy, completeness or reliability of any information disseminated in the media. We disclaim any information in the media to the extent that such information is inconsistent or conflicts with the information contained in this Prospectus. Accordingly, prospective investors are cautioned to make their investment decisions on the basis of the information contained in this Prospectus only and should not rely on any other information.

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## **WAIVERS FROM STRICT COMPLIANCE WITH THE LISTING RULES**

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In preparation for the Global Offering, we have sought the following waivers and exemption from strict compliance with the relevant provisions of the Listing Rules and the Companies (Winding up and Miscellaneous Provisions) Ordinance:

### **MANAGEMENT PRESENCE IN HONG KONG**

Pursuant to Rules 8.12 and 19A.15 of the Listing Rules, an issuer must have sufficient management presence in Hong Kong. This normally means that at least two of its executive directors must be ordinarily resident in Hong Kong.

We do not have sufficient management presence in Hong Kong for the purposes of satisfying the requirements under Rules 8.12 and 19A.15 of the Listing Rules. The Company's management, business operations and assets are primarily based in the PRC. The Directors consider that the appointment of executive Directors who will be ordinarily resident in Hong Kong would not be beneficial to, or appropriate for, the Company and therefore would not be in the best interests of the Company and the Shareholders as a whole. Accordingly, we have applied to the Stock Exchange for, and the Stock Exchange has granted, a waiver from strict compliance with the requirements under Rules 8.12 and 19A.15 of the Listing Rules. We will ensure that there is a regular and effective communication between us and the Stock Exchange by way of the following arrangements:

- (a) pursuant to Rule 3.05 of the Listing Rules, we have appointed and will continue to maintain two authorized representatives, who will act as our principal channel of communication with the Stock Exchange and ensure that our Company complies with the Listing Rules at all times. The two authorized representatives are Dr. Yu, chairman of the Board, executive Director, chief executive officer and general manager of our Company and Mr. Ming King Chiu, the joint company secretary. Each of our authorized representatives will be available to meet with the Stock Exchange within a reasonable time frame upon the request of the Stock Exchange and will be readily contactable by telephone, facsimile and email. Each of the authorized representatives is authorized to communicate on our behalf with the Stock Exchange;
- (b) both authorized representatives have means to contact all our Directors (including our independent non-executive Directors) promptly at all times as and when the Stock Exchange wishes to contact our Directors for any matters. Our Directors who are not ordinarily resident in Hong Kong possess or can apply for valid travel documents to visit Hong Kong and will be able to meet with the Stock Exchange within a reasonable period of time, when required. To enhance communication between the Stock Exchange, our authorized representatives and Directors, we will implement a policy that (i) each Director will have to provide their respective mobile phone number, office phone number, fax number and email address to the authorized representatives; (ii) in the event that a Director expects to travel or is otherwise out of office, he/she will endeavour to provide his/her phone number of the place of his/her accommodation to the authorized representatives or maintain an

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## WAIVERS FROM STRICT COMPLIANCE WITH THE LISTING RULES

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open line of communication via his/her mobile phone; and (iii) all Directors and authorized representatives of our Company will provide their respective mobile phone numbers, office phone numbers, fax numbers and email addresses to the Stock Exchange;

- (c) in compliance with Rules 3A.19 of the Listing Rules, we have appointed Somerley Capital Limited as our compliance adviser (the “**Compliance Adviser**”) which has access at all times to our authorized representatives, Directors, senior management and other officers of our Company, and will act as an additional channel of communication with the Stock Exchange. We will keep the Stock Exchange up to date in respect of any change to such details. Our authorized representatives, Directors and other officers of our Company will provide promptly such information and assistance as the Compliance Adviser may reasonably require in connection with the performance of the Compliance Adviser’s duties as set forth in Chapter 3A of the Listing Rules. There will be adequate and efficient means of communication between our Company, authorized representatives, Directors and other officers and the Compliance Adviser, and to the extent reasonably practicable and legally permissible, we will keep the Compliance Adviser informed of all communications and dealings between the Stock Exchange and us; and
- (d) meetings between the Stock Exchange and our Directors could be arranged through our authorized representatives or the Compliance Adviser, or directly with our Directors within a reasonable time frame. We will inform the Stock Exchange as soon as practicable in respect of any change of authorized representatives and/or the Compliance Adviser.

### JOINT COMPANY SECRETARIES

Pursuant to Rules 3.28 and 8.17 of the Listing Rules, the company secretary must be an individual who, by virtue of his academic or professional qualifications or relevant experience, is, in the opinion of the Stock Exchange, capable of discharging the functions of the company secretary. The Stock Exchange considers the following academic or professional qualifications to be acceptable: (i) a member of The Hong Kong Institute of Chartered Secretaries; (ii) a solicitor or barrister (as defined in the Legal Practitioners Ordinance); and (iii) a certified public accountant (as defined in the Professional Accountants Ordinance).

In assessing “relevant experience,” the Stock Exchange will consider the individual’s: (i) length of employment with the issuer and other listed companies and the roles he/she played, (ii) familiarity with the Listing Rules and other relevant law and regulations including the Securities and Futures Ordinance, the Companies Ordinance, the Companies (Winding Up and Miscellaneous Provisions) Ordinance and the Takeovers Code, (iii) relevant training taken and/or to be taken in addition to the minimum requirement of taking not less than fifteen hours of relevant professional training in each financial year under Rule 3.29 of the Listing Rules, and (iv) professional qualifications in other jurisdictions.

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## **WAIVERS FROM STRICT COMPLIANCE WITH THE LISTING RULES**

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We have appointed Mr. Jin Cui and Mr. Ming King Chiu as our joint company secretaries. Mr. Cui is the executive manager of our corporate strategy department and assistant to the chief executive officer of our Company. Mr. Cui's biographical information is set out in the section headed "Directors, Supervisors and Senior Management" in the Prospectus. Since Mr. Cui does not possess a qualification stipulated in Rule 3.28 of the Listing Rules, he is not able to solely fulfill the requirements as a company secretary of a listed issuer stipulated under Rules 3.28 and 8.17 of the Listing Rules.

Accordingly, we have applied to the Stock Exchange for, and the Stock Exchange has granted, a waiver from strict compliance with the requirements under Rules 3.28 and 8.17 of the Listing Rules in relation to the appointment of Mr. Cui as our joint company secretary. In order to provide support to Mr. Cui, we have appointed Mr. Chiu, an associate member of Institute of Chartered Secretaries and Administrators and the Hong Kong Institute of Chartered Secretaries which meets the requirements under Rule 3.28 and 8.17, as a joint company secretary to provide assistance to Mr. Cui, for a three-year period from the Listing Date so as to enable him to acquire the relevant experience (as required under Rule 3.28(2) of the Listing Rules) to duly discharge his duties.

Such waiver will be revoked immediately if and when Mr. Chiu ceases to provide such assistance. We will liaise with the Stock Exchange before the end of the three-year period to enable it to assess whether Mr. Cui, having had the benefit of Mr. Chiu's assistance for three years and will have acquired relevant experience within the meaning of Rule 3.28 of the Listing Rules so that a further waiver will not be necessary.

See the section headed "Directors, Supervisors and Senior Management" in this Prospectus for further information regarding the qualifications of Mr. Cui and Mr. Chiu.

### **WAIVER AND CONSENT IN RESPECT OF SUBSCRIPTION BY LAV AS A CORNERSTONE INVESTOR**

LAV is a substantial shareholder of the Company who currently holds approximately 18.75% of the Shares of the Company through LAV Spring (Hong Kong) Co., Limited, LAV Bio III Investment (Hong Kong) Co., Limited, Lilly Asia Ventures III Investment (Hong Kong) Co., Limited, Shanghai Li'an Venture Capital Investment Center (Limited Partnership) and Suzhou Litai Venture Capital Investment Center (Limited Partnership). LAV Amber Limited, a close associate of LAV, has entered into a cornerstone investment agreement with us, pursuant to which LAV Amber Limited has agreed to, subject to certain conditions, acquire at the Offer Price a certain number of our H Shares.

#### **Waiver from strict compliance with Rule 9.09(b) of the Listing Rules**

Rule 9.09(b) of the Listing Rules provides that there must be no dealing in the securities for which listing is sought by any core connected person of the issuer (except as permitted by Rule 7.11 of the Listing Rules) from four clear business days before the expected hearing date until listing is granted.

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## WAIVERS FROM STRICT COMPLIANCE WITH THE LISTING RULES

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We have applied for and the Stock Exchange has granted a waiver from strict compliance with Rule 9.09(b) of the Listing Rules, on the following basis:

- (a) No direct or indirect benefits have been offered to LAV (or its close associates) other than a guaranteed allocation of H Shares at the Offer Price. The H Shares to be subscribed by and allocated to LAV (or its close associates) under the Global Offering will be at the same Offer Price and on substantially the same terms as other cornerstone investors (including being subject to a lock-up period of six months following the Listing). Besides, except for Mr. Liang LIN, a non-executive Director of the Company nominated by LAV and appointed on August 6, 2013, LAV will not be entitled to any right to appoint any additional Director or senior management members of the Company. Therefore, there is no unfair treatment to other investors by allowing LAV or its associates to subscribe for H Shares of the Company as a cornerstone investor under the Global Offering of the Company;
- (b) except for LAV's shareholding in the Company, LAV has no other shareholding connection with the Company, the Controlling Shareholders or any of their respective associate and cannot exert any influence on the process of the Proposed Listing or the allocation of H Shares in the Global Offering, nor can it have any inside information in relation to the above;
- (c) there will be no change of ultimate beneficial owners of the Company after allocation of H Shares of the Company to LAV (or its close associates) under the Global Offering;
- (d) allocation of H Shares of the Company to LAV (or its close associates) will enhance the quality and stability of the Company's shareholder base, and will also help improve investors' confidence in the Company and the Global Offering;
- (e) after allocation of H shares to LAV (or its close associates), the Company will ensure that 25% of its total issued Shares with a market capitalization of over HK\$375 million are held by the public upon completion of the Global Offering (assuming no exercise of the Over-allotment Option) in compliance with Rules 8.08 and 18A.07 of the Listing Rules; and
- (f) the subscription of the H Shares by LAV (or its close associates) under the Global Offering as cornerstone investment and the related waiver will be disclosed in this Prospectus.

### **Waiver from strict compliance with Rule 10.04 of the Listing Rules and consent pursuant to paragraph 5(2) of Appendix 6 to the Listing Rules**

Rule 10.04 of the Listing Rules provides that an existing shareholder of an issuer may only subscribe for or purchase any securities for which listing is sought which are being marketed by or on behalf of a new applicant either in his or her own name or through nominees if the conditions in Rule 10.03(1) and (2) are satisfied. The requirements of Rule 10.03 of the Listing Rules are that (1) no securities are offered to the existing shareholder on a preferential basis and no preferential treatment is given to the existing shareholder in the allocation of the securities; and (2) the minimum prescribed percentage of public shareholders required by Rule 8.08(1) of the Listing Rules is achieved.

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## WAIVERS FROM STRICT COMPLIANCE WITH THE LISTING RULES

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Paragraph 5(2) of Appendix 6 to the Listing Rule prohibits allocation of shares in a global offering to existing shareholders of the applicant or their close associates, whether in their own names or through nominees unless the conditions in Rule 10.03 and 10.04 are fulfilled or prior written consent of the Stock Exchange has been obtained.

We have applied for and the Stock Exchange has granted a waiver from strict compliance with Rule 10.04 of the Listing Rules and consent pursuant to paragraph 5(2) of Appendix 6 to the Listing Rules, subject to following conditions:

- (a) the H Shares to be subscribed by and allocated to LAV (or its close associates) under the Global Offering will be at the same Offer Price and on substantially the same terms as other cornerstone investors (including being subject to a lock-up period of six months following the Listing);
- (b) details of the placing arrangement, including the identity and background of LAV (or its close associates), will be disclosed in the final prospectus of the Company;
- (c) no direct or indirect benefits have been offered to LAV (or its close associates) other than a guaranteed allocation of H Shares at the Offer Price;
- (d) the allocation of H Shares to LAV (or its close associates) will not affect the Company's ability to satisfy the public float requirements under Rules 8.08(1) and 18A.07 of the Listing Rules and the Company will ensure that 25% of its total issued Shares with a market capitalization of over HK\$375 million are held by the public upon completion of the Global Offering (assuming no exercise of the Over-allotment Option);
- (e) no preferential treatment has been, or will be, given to LAV (or its close associates) by virtue of its relationship with the Company in any allocation in the placing tranche, other than the preferential treatment of assured entitlement under a cornerstone investment following the principles set out in Guidance Letter HKEx-GL51-13, that the cornerstone investment agreement of LAV (or its close associates) does not contain any material terms which are more favorable to it than those in other cornerstone investment agreements; and
- (f) details of the allocation to LAV (or its close associates) will be disclosed in the Company's allotment results announcement.

For further information, please refer to the section headed "Cornerstone Investors" in this Prospectus.

As at the Latest Practicable Date, we were not aware of any core connected person other than LAV who may not be able to comply with Rule 9.09, 10.04 and paragraph 5(2) of Appendix 6 to the Listing Rules.



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## **INFORMATION ABOUT THIS PROSPECTUS AND THE GLOBAL OFFERING**

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### **DIRECTORS' RESPONSIBILITY FOR THE CONTENTS OF THIS PROSPECTUS**

This Prospectus includes particulars given in compliance with the Companies (Winding Up and Miscellaneous Provisions) Ordinance (Chapter 32 of the Laws of Hong Kong (as amended or supplemented from time to time)), the Securities and Futures (Stock Market Listing) Rules (Chapter 571V of the Laws of Hong Kong) (as amended or supplemented from time to time) and the Listing Rules for the purpose of giving information to the public with regard to our Company. Our Directors collectively and individually accept full responsibility for the accuracy of the information contained in this Prospectus. Our Directors confirm, having made all reasonable enquiries, that, to the best of their knowledge and belief, the information contained in this Prospectus is accurate and complete in all material respects and not misleading or deceptive, and there are no other matters the omission of which would make any statement in this Prospectus misleading.

### **APPROVAL OF THE CSRC**

The Company obtained approval from the CSRC on November 2, 2018, for the making of the application to list the H Shares on the Stock Exchange and the Global Offering. In granting such approval, CSRC shall not accept any responsibility for the Company's financial soundness, nor for the accuracy of any of the statements made or opinions expressed in this Prospectus or on the Application Forms.

### **INFORMATION ON THE GLOBAL OFFERING**

The Hong Kong Offer Shares are offered solely on the basis of the information contained and representations made in this Prospectus and the Application Forms and on the terms and subject to the conditions set out herein and therein. No person is authorized to give any information in connection with the Global Offering or to make any representation not contained in this Prospectus and the relevant Application Forms, and any information or representation not contained herein and therein must not be relied upon as having been authorized by our Company, the Joint Sponsors, the Joint Representatives, the Joint Global Coordinators, the Joint Bookrunners, the Joint Lead Managers, the Underwriters, any of their respective directors, agents, employees or advisers or any other party involved in the Global Offering. Neither the delivery of this Prospectus nor any offering, sale or delivery made in connection with the Offer Shares should, under any circumstances, constitute a representation that there has been no change or development reasonably likely to involve a change in our affairs since the date of this Prospectus or imply that the information contained in this Prospectus is correct as of any date subsequent to the date of this Prospectus.

Details of the structure of the Global Offering, including its conditions, are set out in "Structure of the Global Offering," and the procedures for applying for Hong Kong Offer Shares are set out in "How to Apply for Hong Kong Offer Shares" and in the relevant Application Forms.



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## **INFORMATION ABOUT THIS PROSPECTUS AND THE GLOBAL OFFERING**

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### **UNDERWRITING**

This Prospectus is published solely in connection with the Hong Kong Public Offering, which forms part of the Global Offering. For applicants under the Hong Kong Public Offering, this Prospectus and the Application Forms set out the terms and conditions of the Hong Kong Public Offering.

The Hong Kong Public Offering is fully underwritten by the Hong Kong Underwriters under the terms of the Hong Kong Underwriting Agreement and is subject to our Company and the Joint Representatives (on behalf of the Underwriters) agreeing on the Offer Price.

### **RESTRICTIONS ON OFFER OF THE OFFER SHARES**

Each person acquiring the Hong Kong Offer Shares under the Hong Kong Public Offering will be required to, or be deemed by his acquisition of Offer Shares to, confirm that he is aware of the restrictions on offers of the Offer Shares described in this Prospectus and the relevant Application Forms.

No action has been taken to permit a public offering of the Offer Shares in any jurisdiction other than in Hong Kong, or the distribution of this Prospectus and/or the Application Forms in any jurisdiction other than Hong Kong. Accordingly, this Prospectus and/or the Application Forms may not be used for the purpose of, and does not constitute an offer or invitation in any jurisdiction or in any circumstances in which such an offer or invitation is not authorized or to any person to whom it is unlawful to make such an offer or invitation. The distribution of this Prospectus and the offering of the Offer Shares in other jurisdictions are subject to restrictions and may not be made except as permitted under the applicable securities laws of such jurisdictions pursuant to registration with or authorization by the relevant securities regulatory authorities or an exemption therefrom.

### **APPLICATION FOR LISTING ON THE STOCK EXCHANGE**

Listing is sponsored by the Joint Sponsors. We have applied to the Listing Committee for the granting of the listing of, and permission to deal in, the H Shares in issue and to be issued pursuant to the Global Offering (including pursuant to the exercise of the Over-allotment Option).

No part of our Company's Share or loan capital is listed on or dealt in on any other stock exchange and no such listing or permission to list is being or proposed to be sought in the near future.

### **SHARES WILL BE ELIGIBLE FOR ADMISSION INTO CCASS**

All necessary arrangements have been made enabling the Shares to be admitted into CCASS.

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## INFORMATION ABOUT THIS PROSPECTUS AND THE GLOBAL OFFERING

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If the Stock Exchange grants the listing of, and permission to deal in, the H Shares and our Company complies with the stock admission requirements of HKSCC, the H Shares will be accepted as eligible securities by HKSCC for deposit, clearance and settlement in CCASS with effect from the date of commencement of dealings in the H Shares on the Stock Exchange or any other date HKSCC chooses. Settlement of transactions between participants of the Stock Exchange is required to take place in CCASS on the second Business Day after any trading day.

All activities under CCASS are subject to the General Rules of CCASS and CCASS Operational Procedures in effect from time to time.

### H SHARE REGISTER OF MEMBERS AND STAMP DUTY

Our Company's principal register of members will be maintained by our Company's headquarters in the PRC and our Company's H Share register of members will be maintained by our H Share Registrar, Computershare Hong Kong Investor Services Limited, in Hong Kong.

All Offer Shares will be registered on the H Share register of members of our Company in Hong Kong. Dealings in the H Shares registered on our H Share register of members will be subject to Hong Kong stamp duty.

### REGISTRATION OF SUBSCRIPTION, PURCHASE AND TRANSFER OF H SHARES

We have instructed Computershare Hong Kong Investor Services Limited, our H Share Registrar, and it has agreed, not to register the subscription, purchase or transfer of any H Shares in the name of any particular holder unless and until the holder delivers a signed form to our H Share Registrar in respect of those H Shares bearing statements to the effect that the holder:

- (i) agrees with us and each of the Shareholders, and we agree with each of the Shareholders, to observe and comply with the PRC Company Law, the Special Regulations and the Articles of Association;
- (ii) agrees with us, each of the Shareholders, Directors, Supervisors, managers and officers, and we, acting for ourselves and for each of the Directors, Supervisors, managers and officers, agree with each of the Shareholders, to refer all differences and claims arising from the Articles of Association or any rights or obligations conferred or imposed by the PRC Company Law or other relevant laws and administrative regulations concerning our affairs to arbitration in accordance with the Articles of Association, and any reference to arbitration shall be deemed to authorize the arbitration tribunal to conduct hearings in open session and to publish its award. Such arbitration shall be final and conclusive;
- (iii) agrees with us and each of the Shareholders that the H Shares are freely transferable by the holders thereof; and
- (iv) authorizes us to enter into a contract on his behalf with each of the Directors and officers whereby such Directors and officers undertake to observe and comply with their obligations to the Shareholders as stipulated in the Articles of Association.

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## INFORMATION ABOUT THIS PROSPECTUS AND THE GLOBAL OFFERING

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### PROFESSIONAL TAX ADVICE RECOMMENDED

Potential investors in the Global Offering are recommended to consult their professional advisers if they are in any doubt as to the taxation implications of subscribing for, purchasing, holding or disposal of, and dealing in our Shares (or exercising rights attached to them). None of us, the Joint Sponsors, the Joint Representatives, the Joint Global Coordinators, the Joint Bookrunners, the Joint Lead Managers, the Underwriters, any of their respective directors, officers, employees, agents, or representatives or any other person or party involved in the Global Offering accepts responsibility for any tax effects on, or liabilities of, any person resulting from the subscription, purchase, holding or disposal of, dealing in, or the exercise of any rights in relation to, our H Shares.

### EXCHANGE RATE CONVERSION

Solely for your convenience, this Prospectus contains translations of certain Renminbi amounts into Hong Kong dollars, of Renminbi amounts into U.S. dollars and of Hong Kong dollars into U.S. dollars at specified rates.

Unless we indicate otherwise, the translation of Renminbi into Hong Kong dollars, of Renminbi into U.S. dollars and of Hong Kong dollars into U.S. dollars, and vice versa, in this Prospectus was made at the following rate:

RMB0.85297 . . . . .	to HK\$1.00
RMB6.7048 . . . . .	to US\$1.00
HK\$7.8481 . . . . .	to US\$1.00

No representation is made that any amounts in Renminbi, Hong Kong dollars or U.S. dollars can be or could have been at the relevant dates converted at the above rates or any other rates or at all.

### LANGUAGE

If there is any inconsistency between this Prospectus and the Chinese translation of this Prospectus, this Prospectus shall prevail. Translated English names of Chinese laws and regulations, governmental authorities, departments, entities, institutions, natural persons, facilities, certificates, titles and the like included in this Prospectus and for which no official English translation exists are unofficial translations for identification purposes only. In the event of any inconsistency, the Chinese name prevails.

### ROUNDING

Unless otherwise stated, all the numerical figures are rounded to one or two decimal place(s). Any discrepancies in any table or chart between totals and sums of amounts listed therein are due to rounding.

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**DIRECTORS, SUPERVISORS AND PARTIES INVOLVED IN THE GLOBAL OFFERING**

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**DIRECTORS**

<b>Name</b>	<b>Address</b>	<b>Nationality</b>
<b>Executive Directors</b>		
Xuefeng YU	86 Woodstone Avenue, Richmond Hill Ontario, L4S 1G8 Canada	Canadian
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Tao ZHU (朱濤)	Room 1101, Unit 6, Building 8 Taida Shidai Garden, Shunda Street Binhai New Area Tianjin PRC	Chinese
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<b>Non-executive Directors</b>		
Qiang XU (許強)	Room 1601, No. 5 Lane 555 Huangjincheng Road Changning District Shanghai PRC	Chinese
Liang LIN (林亮)	2-702, Lane 668 Guoxiao Road Yangpu District Shanghai PRC	Chinese
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Zheng YIN (尹正)	504 Songyuan Road Mingduyuan, Houshayu Shunyi District Beijing PRC	Chinese

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**DIRECTORS, SUPERVISORS AND PARTIES INVOLVED IN THE GLOBAL OFFERING**

---

<b>Name</b>	<b>Address</b>	<b>Nationality</b>
<b>Independent Non-executive Directors</b>		
Shiu Kwan Danny WAI (韋少琨)	1 Robert Close London W9 1BY United Kingdom	Chinese (Hong Kong)
Zhu XIN (辛珠)	Flat/Room C, Block 2, 23/F Mount Haven Tsing Yi New Territories Hong Kong	Chinese (Hong Kong)
Luis BARRETO	53 Crooked Stick Road Concord Ontario, L4K 1P4 Canada	Canadian
Pierre Armand MORGON	Coin d'En Haut 13 1092 Belmont-sur-Lausanne Switzerland	Swiss

**SUPERVISORS**

<b>Name</b>	<b>Address</b>	<b>Nationality</b>
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For further information regarding our Directors and Supervisors, please refer to “Directors, Supervisors and Senior Management.”

**OTHER PARTIES INVOLVED IN THE GLOBAL OFFERING**

**Joint Sponsors**

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**CLSA Capital Markets Limited**

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**Legal Advisers to the Company**

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**Legal Advisers to the Joint Sponsors  
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PRC



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**DIRECTORS, SUPERVISORS AND PARTIES INVOLVED IN THE GLOBAL OFFERING**

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**Auditor and Reporting Accountant****PricewaterhouseCoopers***Certified Public Accountants*

22/F, Prince's Building

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**Industry Consultant****China Insights Consultancy Limited**

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**Property Valuer****D&P China (HK) Limited**

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**Receiving Bank****Bank of China (Hong Kong) Limited**

1 Garden Road

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## CORPORATE INFORMATION

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<b>Headquarters and Registered Office in the PRC</b>	401-420, 4th Floor Biomedical Park 185 South Avenue TEDA West District Tianjin PRC
<b>Principal Place of Business in Hong Kong</b>	Room 1901, 19/F, Lee Garden One 33 Hysan Avenue Causeway Bay Hong Kong
<b>Company's Website</b>	<u><a href="http://www.cansinotech.com">www.cansinotech.com</a></u> <i>(Information contained in this website does not form part of this Prospectus)</i>
<b>Joint Company Secretaries</b>	Mr. Jin Cui Mr. Ming King Chiu ( <i>HKICS</i> )
<b>Authorized Representatives</b>	Dr. Xuefeng Yu 86 Woodstone Avenue Richmond Hill Ontario, L4S 1G8 Canada  Mr. Ming King Chiu Room 1901, 19/F, Lee Garden One 33 Hysan Avenue Causeway Bay Hong Kong
<b>Audit Committee</b>	Ms. Zhu Xin (Chairwoman) Mr. Shiu Kwan Danny Wai Dr. Zheng Yin
<b>Remuneration and Assessment Committee</b>	Dr. Pierre Armand Morgon (Chairman) Dr. Luis Barreto Ms. Zhu Xin Dr. Shou Bai Chao Mr. Liang Lin

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## CORPORATE INFORMATION

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**Nomination Committee**

Dr. Xuefeng Yu (Chairman)  
Mr. Shiu Kwan Danny Wai  
Dr. Pierre Armand Morgon  
Dr. Luis Barreto  
Ms. Nisa Bernice Wing-Yu Leung

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**Compliance Adviser**

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**Principal Banks**

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Tianjin Technology Branch**  
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PRC

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Tianjin TEDA Street Branch**  
Investment Service Center Building  
No. 3 Avenue  
Industrial Development Area  
Tianjin  
PRC

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## INDUSTRY OVERVIEW

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*Certain information and statistics set out in this section and elsewhere in this Prospectus relating to the industry in which we operate are derived from the CIC Report<sup>(1)</sup> prepared by CIC, an independent industry consultant which was commissioned by us. The information extracted from the CIC Report should not be considered as a basis for investments in the Offer Shares or as an opinion of CIC as to the value of any securities or the advisability of investing in our Company. We believe that the sources of such information and statistics are appropriate for such information and statistics and have taken reasonable care in extracting and reproducing such information and statistics. We have no reason to believe that such information and statistics are false or misleading or that any fact has been omitted that would render such information and statistics false or misleading in any material respect. Our Directors have further confirmed, after making reasonable enquiries and exercising reasonable care, that there is no adverse change in the market information since the date of publication of the CIC Report or any of the other reports which may qualify, contradict or have an impact on the information in this section. No independent verification has been carried out on such information and statistics by us, the Joint Sponsors, the Joint Representatives, the Joint Global Coordinators, the Joint Bookrunners, the Joint Lead Managers, the Underwriters or any other parties (other than CIC) involved in the Global Offering or their respective directors, officers, employees, advisers, or agents, and no representation is given as to the accuracy or completeness of such information and statistics. Accordingly, you should not place undue reliance on such information and statistics. Unless and except for otherwise specified, the market and industry information and data presented in this Industry Overview section is derived from the CIC Report.*

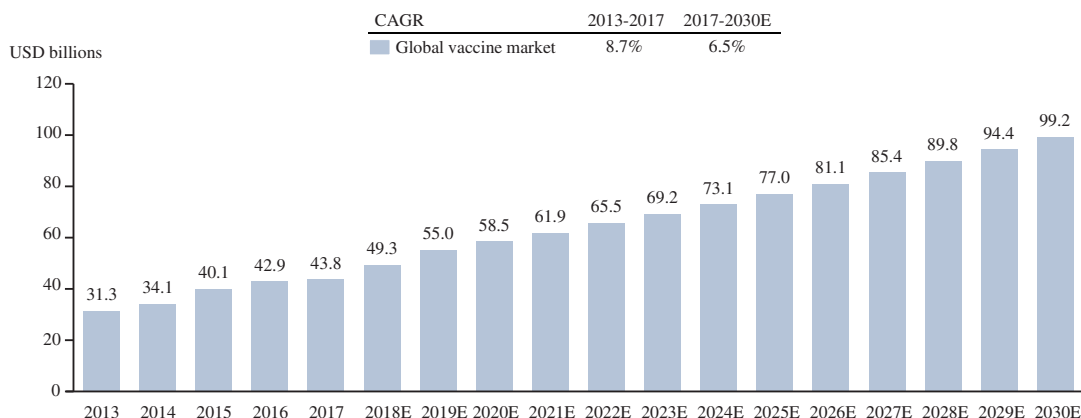
### THE GLOBAL VACCINE MARKET OVERVIEW

Vaccines represent a major healthcare success story, having effectively reduced the global or regional prevalence of many infectious diseases. Vaccinations, as a primary form of preventive medicine, can be more cost-effective from a public health expenditure perspective than curative treatments after the disease is contracted. In terms of sales revenue, the size of the global vaccine market increased from US\$31.3 billion in 2013 to US\$43.8 billion in 2017 at a CAGR of 8.7%, and is expected to reach US\$99.2 billion in 2030 at a CAGR of 6.5%, primarily driven by the growing needs for vaccination worldwide, support from government and international organizations, as well as new vaccines development. The following diagram illustrates the actual and forecast global market size for vaccines in terms of sales revenue for the period indicated.

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(1) The contract sum to CIC is RMB680,000 for the preparation and use of the CIC Report, and we believe that such fees are consistent with the market rate. CIC is an independent consulting firm founded in Hong Kong. It offers industry research and market strategies and provides growth consulting and corporate training. In compiling and preparing the CIC Report, CIC has adopted the following assumption: (i) the overall social, economic and political environment in the PRC is expected to remain stable during the forecast period; (ii) China's economic and industrial development is likely to maintain a steady growth trend over the next decade; (iii) related key industry drivers are likely to continue driving the growth of China's vaccine market during the forecast period and, (iv) there is no force majeure or industry regulation in which the market may be affected dramatically or fundamentally. CIC has conducted detailed primary research which involved discussing the status of the industry with leading industry participants and industry experts. CIC has also conducted secondary research which involved reviewing company reports, independent research reports and data based on its own research database. CIC has obtained the figures for the projected total market size from historical data analysis plotted against macroeconomic data as well as specific related industry drivers.

## INDUSTRY OVERVIEW



Source: CIC Report

In the vaccine industry, an innovative vaccine refers to one that is developed with a new technology to provide the acquired immunity to a particular disease that could not be covered by previous generations of vaccines or for which a vaccine did not exist. Moreover, an innovative vaccine is also one that targets new subtypes or different strains of viruses. 16 innovative vaccines have been developed since 2000, many of which are global blockbuster vaccines. The top 10 global blockbuster vaccines in 2017 accounted for an aggregate 41.7% market share in terms of total sales revenues. These 10 vaccines are manufactured by four global vaccine companies. The following table illustrates the details of the 16 innovative vaccines, the global top 10 vaccines in 2017, and in particular, the vaccines that CanSinoBio's product pipeline will compete against:

	Rank	Innovative vaccine developed since 2000	Vaccine	Target diseases	Company	Sales Revenue (USD million)	Market Share	Product targeted by Cansino's pipeline
Top 10 vaccines	1	Yes	Prenar 13	Pneumonia	Pfizer	5,601	12.8%	☑
	2	Yes	Gardasil/Gardasil 9	HPV	Merck & Co.	2,308	5.3%	-
	3	Yes	Hexaxim, Hexyon, Pentacel and Pentaxim	DTP, Hib, Polio	Sanofi Pasteur	2,265	5.2%	☑
	4	Yes	Vaxigrip, Fluzone	Influenza	Sanofi Pasteur	1,970	4.5%	-
	5	No	ProQuad, M-M-R II and Varivax	MMR, Varicella	Merck & Co.	1,676	3.8%	-
	6	Yes	Infanrix/Pediarix	DTP, Hep B	GlaxoSmithKline	1,048	2.4%	☑
	7	No	Havrix, Engerix-B and Twinrix	Hep A, Hep B	GlaxoSmithKline	977	2.2%	-
	8	No	Pneumovax 23	Pneumonia	Merck & Co.	821	1.9%	☑
	9	Yes	Boostrix	DTP	GlaxoSmithKline	790	1.8%	☑
	10	Yes	Bexsero	Meningococcal meningitis	GlaxoSmithKline	784	1.8%	☑
Other innovative vaccines developed after 2000	-	Yes	Fluarix/FluLaval	Influenza	GlaxoSmithKline	688	1.6%	-
	-	Yes	RotaTeq	Rotavirus	Merck & Co.	686	1.6%	-
	-	Yes	Menactra	Meningococcal meningitis	Sanofi Pasteur	674	1.5%	☑
	-	Yes	Zostavax	Shingles	Merck & Co.	668	1.5%	-
	-	Yes	Adacel	DTP	Sanofi Pasteur	474	1.1%	☑
	-	Yes	Menveo	Meningococcal meningitis	GlaxoSmithKline	386	0.9%	☑
	-	Yes	Cervarix	HPV	GlaxoSmithKline	189	0.4%	-
	-	Yes	TRUMENBA	Meningococcal meningitis	Pfizer	120	0.3%	☑
	-	Yes	SHINGRIX	Shingles	GlaxoSmithKline	31	0.1%	-
	<b>Total</b>					<b>~43,758</b>	<b>100.0%</b>	

Source: Annual report, CIC Report

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## INDUSTRY OVERVIEW

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### THE VACCINE MARKET IN THE PRC

China's vaccine market is vast and underserved. Vaccines are developed to address the needs of public health, and accordingly, market size is directly correlated to the population of the nation. As such, China's vaccine market is vast due to its large population, which is estimated to be approximately 1,409.8 million in 2017 and is expected to reach 1,463.0 million by 2030. According to the CIC Report, the population below 6 years old in China is expected to decrease from 102.0 million in 2017 to 89.2 million in 2030 primarily due to a decrease in the number of newborns in China. From 2017 to 2030, China's population aged 6 to 65 years old is expected to decrease from 1,157.8 million to 1,127.8 million, and its population above 65 years old is expected to increase from 150.0 million to 245.9 million. In particular, as a number of vaccines targeting meningococcal diseases, DTP and pneumococcal diseases are primarily administered on newborns, the following table sets forth the population of newborns in China for the period indicated.



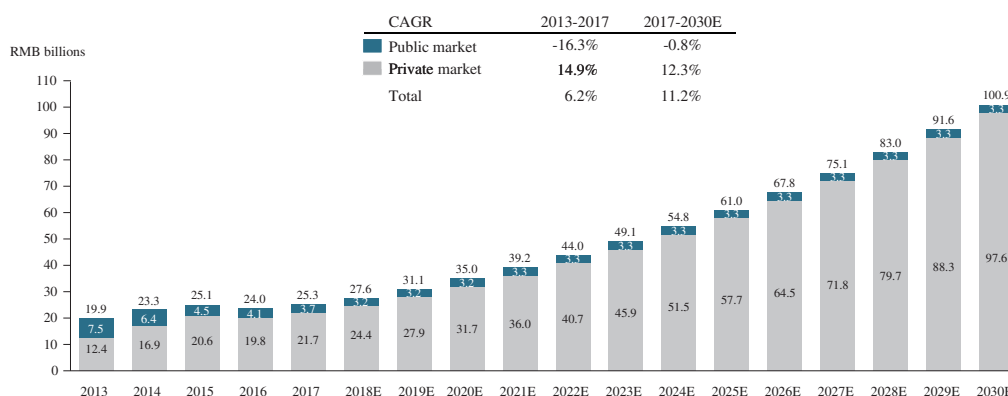
Source: UN, CIC Report

In terms of sales revenue, the total size of China's vaccine market increased from RMB19.9 billion in 2013 to RMB25.3 billion (US\$3.8 billion) in 2017, and is expected to reach RMB100.9 billion in 2030 at a CAGR of 11.2%. China's vaccine market can be divided into the public vaccine market and the private vaccine market. Vaccines in the public market are purchased by provincial CDCs from manufacturers at a relatively low price and offered to the public for free. Vaccines in the private market are paid out-of-pocket by the public. In terms of price, vaccines in the public market are regulated by the PRC government and are generally sold to provincial CDCs at relatively low prices. Vaccines in the private market, on the other hand, have higher pricing. The public market is primarily supplied by state-owned vaccine companies that provide a stable volume of vaccines to the PRC government each year. The private market is primarily dominated by privately-owned vaccine companies. State-owned vaccine companies and privately-owned companies have different market focus in China's vaccine market. With respect of China's private vaccine market, privately-owned vaccine companies generally have stronger research and development capabilities compared to state-owned vaccine companies that support the development of new and innovative vaccines. Due to the continuing growth of the private vaccine market, the sales volume of private vaccines is expected to increase at a CAGR of 4.7% from 2017 to 2030. As a percentage of the overall vaccine market in China, private vaccine market had a 32.4% market share in terms of sales volume in 2017, which is expected to increase to 50.1% in 2030. Generally, privately-owned vaccine companies are expected to gain market share from state-owned vaccine companies in the overall vaccine market in terms of sales volume.

## INDUSTRY OVERVIEW

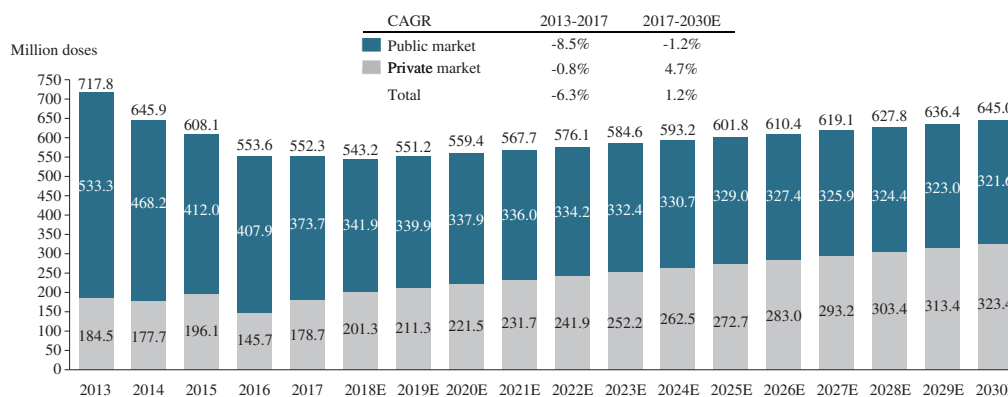
China's private vaccine market size increased from RMB12.4 billion in 2013 to RMB21.7 billion in 2017, and is expected to reach RMB97.6 billion in 2030, at a CAGR of 12.3% from 2017 to 2030. The private vaccine market's percentage of China's total vaccine market in terms of sales revenue is expected to increase from 85.8% in 2017 to 96.6% in 2030. The private vaccine market is expected to overcome the gradual decrease in the population of newborns in China and display strong growth. The growth is primarily driven by the replacement of current primary vaccines in China with the increasing availability of high-quality and innovative vaccines, which generally enter the market as private market vaccines. In contrast, the public vaccine market is expected to decrease with a compounded annual rate of 0.8% from 2017 to 2030, and account for a decreasing share of the overall vaccine market. The following charts set forth the actual and forecast sales revenue and sales volume of vaccines in the PRC for the period indicated.

**PRC vaccine market in terms of sales revenue, 2013-2030E**



Source: CIC Report

**PRC vaccines market in terms of sales volume<sup>(1)</sup>, 2013-2030E**

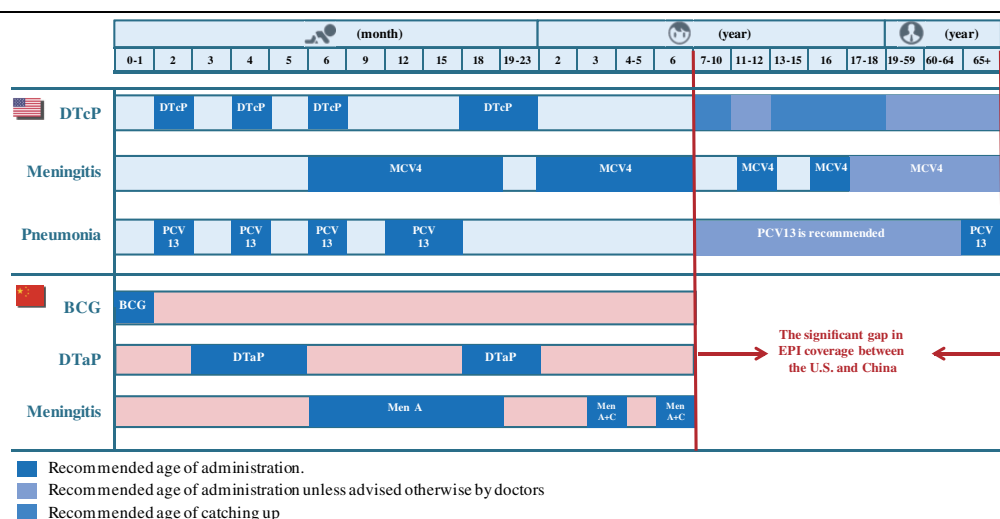


Source: CIC Report

(1) Sales volume is estimated based on the lot release volume of vaccines.

## INDUSTRY OVERVIEW

China's Expanded Programme on Immunization (EPI) is a national guideline which sets out the diseases recommended for vaccination and the recommended age and schedule for vaccination. Vaccines under China's EPI are either purchased by the government and supplied to the public market, or can be purchased in the private market. In addition, the public can also purchase vaccines not covered by China's EPI in the private market. The following diagram illustrates the comparison of the relevant EPIs in the U.S. and China. The list of vaccines in this diagram only includes vaccines relevant to the Company, not other vaccines in the EPI programs.



Source: CDCs in the U.S. and China, CIC Report

Unlike drugs, vaccines are the primary form of preventive medicine. High vaccination rates of the general public over time ensure a low disease incidence rate and protect people from contracting diseases. However, currently available vaccines may be inadequate in terms of safety, efficacy or quality consistency. China's vaccine market is underserved because the limitations of currently available vaccines have not been addressed due to the lack of new and better vaccines. Compared with developed countries such as the United States, a majority of the widely used vaccines in China are still older generation vaccines that have been replaced by better and new vaccines in developed countries. With high vaccination rates for diseases such as meningococcal disease and DTP, there is strong market potential for high-quality and innovative vaccines to address the limitations of, and replace, the currently available vaccines in China.

Although innovative vaccines have been increasingly available in China in recent years, only three of the top 10 global vaccines, namely, Prevnar 13, Gardasil and Pentaxim, were available in China as of the end of 2017, primarily due to the different development requirements under the Pharmacopoeia of China. Moreover, prior to policy changes in October 2017, overseas clinical trial data was not accepted in China. Vaccines approved overseas had to conduct separate clinical trials in China to be registered in China. These vaccines have had lower penetration rates compared to developed countries considering that they were only approved in recent years. For example, the penetration rate of Pentaxim in the United States ranged from 35% to 40% in newborns in 2017, while that in China was approximately 3% in the same year. As illustrated in the diagram above, China's EPI covers fewer vaccines



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## INDUSTRY OVERVIEW

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compared with the U.S.'s EPI, and most of the vaccines under China's EPI are older generation or lacking a booster schedule for better protection. In addition, China's vaccine market is primarily vaccines for the pediatric population. There is currently no vaccine recommended for the adolescent and adult population, including the elderly, in China.

### Market Drivers and Trends

The primary market drivers and trends for China's vaccine market include:

- *Increasing availability of high-quality vaccines.* Compared with vaccines in the developed countries, a majority of China's widely used vaccines are older generation and the introduction of new vaccines is lagging behind the international market. To satisfy the growing needs in China, a number of new promising vaccines have been developed to replace the current sub-optimal vaccines and are in the late clinical trial stage. In addition, among the top 10 global blockbuster vaccines, Pevnar 13 and Gardasil 9 were only recently approved in China in 2016 and 2017, respectively.
- *Untapped adult market with increasing aging population.* The U.S.'s EPI covers a number of vaccines for adults; however, no such vaccine coverage is included in China's EPI. In addition, China has become an aging society with the percentage of population aged above 65 years old projected to increase from 10.6% in 2017 to 16.8% by 2030. Therefore, China's aging population will also contribute to increasing demand for vaccines in China. Vaccines have proved to be one of the most effective ways to prevent diseases commonly found in the elderly populations.
- *Increasing awareness of the benefits of vaccination.* Marketing efforts of vaccine manufacturers and the PRC government's health education campaigns will continue to contribute to increasing awareness of the benefits and necessity of better vaccines and vaccination strategy, which is expected to lead to an increase in expenditure on vaccines in China.
- *Increasing affordability of vaccines in the private market.* Due to the relatively low per capita income, the lack of high-quality vaccines and lower awareness of the benefits of vaccination in China, per capita spending on vaccines in China has historically been relatively low compared to developed countries. In 2017, per capita spending on vaccines in China was approximately US\$2.9 per person, while it was approximately US\$49.3 per person in the United States. Per capita net income for urban households and rural households in China is expected to increase to RMB50,900 and RMB22,200 by 2022, respectively, with a CAGR of 7.1% and 9.5% from 2017, respectively. As a result, the affordability of vaccines in the private market by China's households is expected to increase, which in turn will lead to an increase in population purchasing private market vaccines. Vaccines in the private market in China typically include innovative vaccines or world-class blockbuster vaccines.

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## INDUSTRY OVERVIEW

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- *Increasing government expenditure for and policy support of preventive healthcare.* China's 13th Five Year Plan promotes increasing allocation of resources to preventive healthcare. It is expected that there will be an increasing number of vaccines in the public market in the future, such as MCV2 and DTcP vaccines for children below 6 years old, which is expected to significantly increase sales volume of such vaccines. In addition, under China's ongoing healthcare reform, CFDA has significantly accelerated the approval for new vaccines, including vaccines developed overseas. In line with such policy reforms, global and innovative vaccines are expected to be increasingly available in the future.

### Entry Barriers

The following are major entry barriers in the vaccines market in the PRC.

- *Research and development capabilities.* Vaccine research and development is a complex process, from the study of genomics to the design of new antigens. Critical research and development capabilities include integrated platform technologies, talented and experienced industry experts, and compliant facilities.
- *Complex manufacturing processes and stringent quality management system requirement.* Vaccine manufacturing is a complex process which takes 6 to 12 months. As a result, vaccine companies in China are required to manufacture vaccines in-house and may not outsource manufacturing to CMOs in China. In addition, to ensure the safety and efficacy of vaccines products, vaccine companies are required to implement strict quality management systems. New entrants may lack the in-depth expertise and process know-how required for manufacturing vaccines, and may fail to establish an effective quality management system.
- *Long development time frame and approval uncertainty.* To receive government approvals, vaccine companies have to conduct proof-of-concept evaluations, challenge studies and immunogenicity studies and multiple clinical trials before receiving final approvals for products. This process may last more than ten years. During the long development process, vaccine companies may spend millions of dollars and may fail to develop an approved vaccine product. In particular, international vaccine companies face differences in development requirements under the Pharmacopoeia of China and overseas, and may be less familiar with local policies and the vaccine registration process, which may affect their ability to develop an approved vaccine product.
- *Intensive capital requirement.* A large amount of investment is required before the launch of a new vaccine. The construction of R&D facilities and manufacturing facilities are capital-intensive. In addition, a variety of tests and clinical trials need to be conducted with significant spending on establishment of medical teams, recruiting subjects, engagement of CROs and selection of trial sites.

### MENINGOCOCCAL VACCINES

#### Overview

Meningococcal meningitis is a serious infection of the meninges primarily caused by the *N. meningitides* bacteria. The symptoms of meningitis are similar to that of influenza and difficult to detect in early stages. Without timely treatment, meningitis can be fatal, with a mortality rate of approximately 20% to 35%. According to official figures of the CDC of China, there were 118 reported cases of meningococcal disease in China in 2017. Market demand for meningococcal vaccines, especially new and better vaccines, remain high, as discussed below. Due to a high vaccination rate of children under 2 years old for meningococcal disease of approximately 99.5% in China in 2016, the market potential for new and better meningococcal vaccines is vast as they gradually replace older generation vaccines.

#### Types of Meningococcal Vaccines

*Neisseria meningitides* has 13 clinically significant serogroups. Serogroups A, C, W135 and Y are the most frequent causes of the disease in China and are generally covered by meningococcal vaccines. Serogroup B has become a major emerging cause of meningitis as most vaccines only cover serogroups A, C, W135 and Y. However, the vaccine against serogroup B has been more difficult to develop because the outer coating on serogroup B bacteria behaves differently than the outer coatings on other serogroups. There are two main types of meningococcal vaccines, namely meningococcal polysaccharide vaccines (MPSV) and meningococcal conjugate vaccines (MCV). MPSV and MCV products both include bi-valent and quadra-valent vaccines.

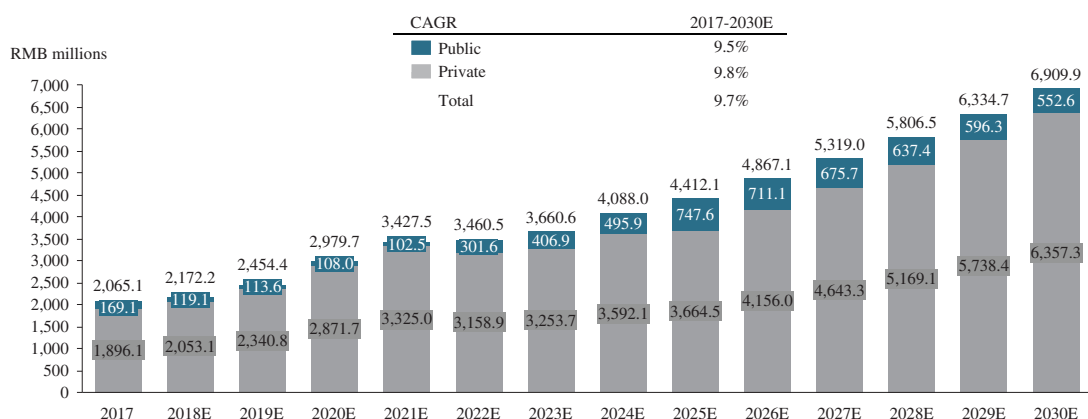
In China, MPSVs are the primary meningococcal vaccines in terms of sales volume, which mainly include MPSV2 and MPSV4, and meningococcal A vaccines to a much lesser extent. However, meningococcal A vaccines, which are only effective against serogroup A, require two doses for children under two years old and require a booster schedule as their effectiveness decreases over time. In addition, MPSV2 and MPSV4 products have a limited age indication as they cannot induce immune responses in children younger than 2 years old, which is an important fact because the incidence of meningococcal disease is highest in infants below 12 months old. In developed countries, MPSVs have been replaced by MCV products. MCV4 products, which have a broader serogroup coverage of A, C, W135 and Y serogroups compared to MCV2 products, which only cover A and C serogroups, dominate the market. In contrast, MCV2 products are currently the only available meningococcal conjugate vaccines in China and are sold in the private market. In 2017, the market share of MCV2 products in China reached 31.5% of the total meningococcal vaccines market in terms of sales revenue.

## INDUSTRY OVERVIEW

### Market for Meningococcal Vaccines

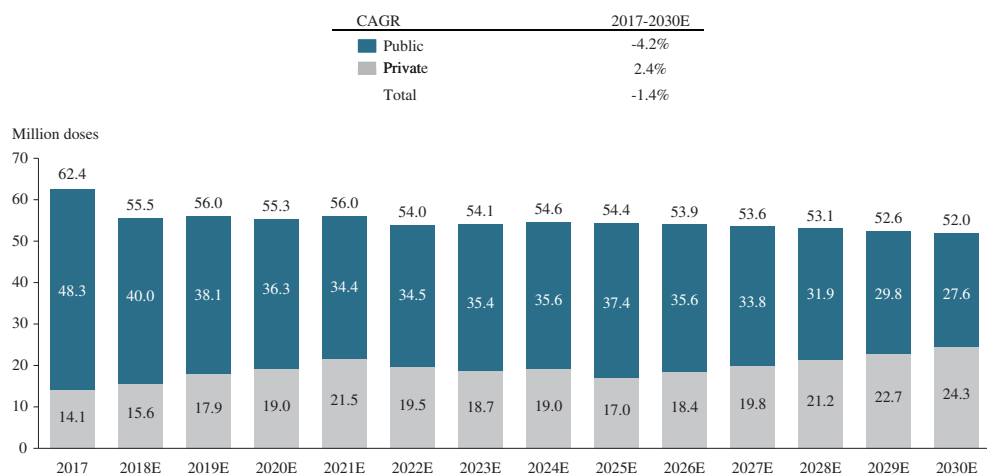
The meningococcal vaccine market in the PRC is expected to increase significantly from RMB2.1 billion in 2017 to RMB6.9 billion in 2030, with a CAGR of 9.7%, primarily driven by the increasing sales of MCV products particularly due to the expected approval of MCV4 products. In terms of sales volume, the meningococcal vaccine market in the PRC is expected to display a decline overall from 62.4 million doses in 2017 to 52.0 million doses in 2030. The decline is primarily due to the decrease in newborns in China, as meningococcal vaccines are mainly administered on infants. The following charts set forth the actual and forecast size of the meningococcal vaccine market in terms of sales revenue and sales volume for the period indicated.

**PRC meningococcal vaccine market by sales revenue, 2017-2030E**



Source: CIC Report

**PRC meningococcal vaccine market by sales volume<sup>(1)</sup>, 2017-2030E**

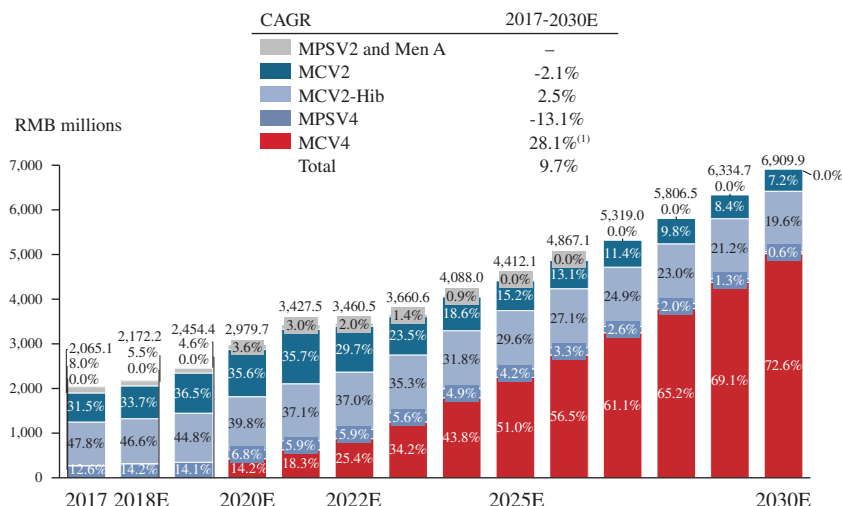


Source: CIC Report

(1) Sales volume is estimated based on the lot release volume of vaccines.

## INDUSTRY OVERVIEW

The following chart sets forth the actual and forecast size of the meningococcal vaccine market in terms of sales revenue by each product category for the period indicated.



Source: CIC Report

(1) The CAGR of the MCV4 market refers to the CAGR between 2020 and 2030.

Current public meningococcal vaccines are MPSV2 and meningococcal A vaccines with 82.7% of children under 2 years old administered with such vaccines in 2017. For children under 2 years old, the difference between the overall vaccination rate and the vaccination rate of public meningococcal vaccines represents the market share of private meningococcal vaccines. Currently, MCV2 products in China are private market vaccines. As MCV2 products become increasingly used in China in recent years and along with the introduction of MCV4 products, the private vaccine market is expected to grow in terms of sales revenue and sales volume from 2017 to 2021. Due to the expected development and launch of MCV4 products and additional MCV2 products in China's market, coupled with the anticipated increase in production of MCV2 products as well as replacement of MCV2 products by MCV4 products in the private vaccine market, it is expected that the PRC government will gradually include higher quality vaccines into the public market, such as MCV2 products, as a public market vaccine beginning in 2022 and completely replace current public market vaccines (MPSV2 and meningococcal A vaccines) with MCV2 products in 2025. From 2022 to 2024, the public vaccine market is expected to grow and the market share of MCV2 in terms of sales volume in public vaccine market is expected to be 33.9% in 2022, 50.1% in 2023 and 64.5% in 2024, respectively. The gradual inclusion of MCV2 products as a public market vaccine by the PRC government is expected to result in a drop in the price of MCV2 products. From 2025 to 2030, the increasing availability of MCV4 products will result in the growth of the private vaccine market in terms of both sales revenue and sales volume.

Due to their inclusion as a public market vaccine and because MCV2 products have a limited serogroup coverage, MCV2 products will be lower priced compared to MCV4 products. The lower prices of MCV2 products will result in a corresponding decline in its market size.

## INDUSTRY OVERVIEW

in terms of sales revenue. In contrast, MCV4 products, which have a broader serogroup coverage and therefore are more expensive in general, are expected to be the dominant vaccines in China's meningococcal vaccine market in 2030 as private market vaccines. It is expected that MCV2 and MCV4 products will have limited competition due to the difference in prices and target markets, according to the CIC Report.

### Competitive Landscape

Although there is no MCV4 approved in China to date, there are a number of MCV4 candidates in clinical trials. We are one of the two companies with a MCV4 candidate in phase III clinical trials or later stage. A summary of the competitive landscape of MCV4 candidates in China is set out below.

Company	Stage of development	Age indication
CanSinoBio	NDA-ready	3 months to 6 years old
Minhai	Phase III	2 months to 6 years old
Beijing Zhifei Lvzhu	Phase II	3 months and older
Lanzhou Institute of Biological Products Co., Ltd	Phase I	2 months to 55 years old
Walvax	Phase I	2 months to 55 years old
Novartis	CTA-filed	Unknown

*Source: CanSinoBio phase III clinical trial results summary, CIC Report*

For competitive landscape analysis, please refer to “Business – Our Vaccine Pipeline – MCV Candidates – Near-commercial Vaccine Candidates – MCV4 – Competition.”

We are developing a potential best-in-class MCV2 vaccine in China, which will initially target the private market. As MCV2 products gradually replace current public market vaccines, our MCV2 product may become a public market vaccine. There are three approved MCV2 products in China's private vaccine market, including MCV2 products marketed by Walvax, Royal and Beijing Zhifei Lvzhu, respectively. In addition, there are a number of MCV2 candidates under development in China. A summary of the competitive landscape of MCV2 candidates in China is set out below.

Company	Stage of development	Age indication	Safety	Pricing
Walvax	Commercialized	3 months to 5 years old	Occasional adverse reactions include fever and rash. The injection site may be red, swollen and itchy. In extremely rare cases, children may have serious reactions, including the headache, fatigue, sleepiness, irritability and digestive disorder, among others.	Approximately RMB90

## INDUSTRY OVERVIEW

Company	Stage of development	Age indication	Safety	Pricing
Royal	Commercialized	6 months and above	Occasional adverse reactions include transient fever, rash, dizziness, headache, fatigue, anorexia, abdominal pain and diarrhea. The injection site may be tender, red, itchy and swollen.	Approximately RMB120
Beijing Zhifei Lvzhu	Commercialized	3 months and above	Occasional adverse reactions include fever and rash. The injection site may show tenderness, redness and induration. In extremely rare cases, children may have serious reactions including the sleepiness and irritability.	Approximately RMB80
CanSinoBio	NDA-filed	3 months to 23 months	–	N/A
Olymvax	Phase III	3 months to 5 years old	–	N/A
Chengdu Institute of Biological Products	Phase II	3 months to 5 months old	–	N/A
Lanzhou Institute of Biological Products	Phase I	2 months and older	–	N/A

*Source: CanSinoBio phase III clinical trial results summary, CIC Report*

For competitive landscape analysis, please refer to “Business – Our Vaccine Pipeline – MCV Candidates – Near-commercial Vaccine Candidates – MCV2 – Competition.”

For details on our pricing policy for our vaccine candidates, including our MCV2 and MCV4 candidates, see “Business – Commercialization – Pricing Policy.”

## PNEUMOCOCCAL VACCINES

### Overview

Pneumococcal diseases are caused by pneumococcus bacteria. Pneumococcal diseases can be divided into invasive pneumococcal diseases and non-invasive pneumococcal diseases. The annual incidence rate of pneumococcal disease in China was relatively high at approximately 1.5% to 2.0% in 2017. The highest incidence of pneumococcal diseases occur at the extremes of age, i.e, in children under 5 years old and among the elderly over 65 years old. In addition, antibiotic resistance caused by the wide misuse of antibiotics has increased morbidity and mortality among the elderly infected with pneumococcal diseases. The market potential for new and better pneumococcal vaccines in the PRC is significant considering the high incidence rate and the fact that the primary pneumococcal vaccine currently available in China, namely, PPV23, cannot be used in children under 2 years old and cannot elicit effective protection in the elderly, which are age populations with the highest incidence for pneumococcal disease.

## INDUSTRY OVERVIEW

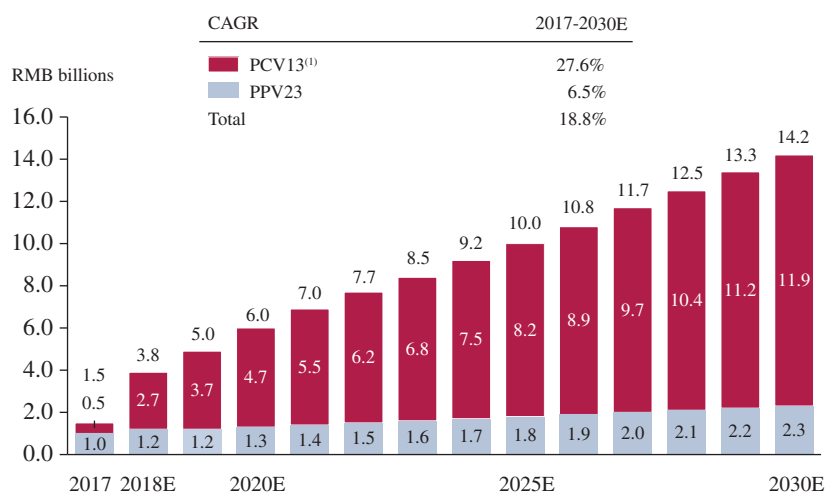
### Types of Pneumococcal Vaccines

The 23-valent pneumococcal polysaccharide vaccine (PPV23) and the 13-valent pneumococcal conjugate vaccine (PCV13) are the currently available pneumococcal vaccines in China. Currently, PPV23 products are the primary pneumococcal vaccines in China, which cannot be used in children under 2 years old and cannot elicit effective protection in the elderly. Moreover, PPV23 products and PCV13 products are all serotype-based and therefore are effective against only up to 23 pneumococcal serotypes but not able to protect against all of the 90 plus serotypes of *Streptococcus pneumoniae*. PBPV is a non-serotype-specific, protein-based pneumococcal vaccine that would be able to offer broader protection than current serotype-specific PCVs, and can potentially have a much broader coverage in the elderly than that offered by the current PPV23 and PCV13 products. Currently, the PPV23 and PCV13 products available in China primarily target invasive pneumococcal diseases (mainly including bacteremia and meningitis), and do not protect against non-invasive pneumococcal diseases. PBPV can protect individuals against non-invasive pneumococcal diseases, including community-acquired pneumonia and otitis media.

### Market for Pneumococcal Vaccines

China's pneumococcal vaccine market is a private vaccine market, valued at RMB1.5 billion in terms of 2017 sales revenue. The pneumococcal vaccine market in the PRC is expected to increase to RMB14.2 billion in 2030 at a CAGR of 18.8% from 2017 to 2030. In terms of sales volume, the pneumococcal vaccine market is expected to increase from 5.8 million doses in 2017 to 25.4 million doses in 2030 at a CAGR of 12.1%. The market growth in terms of sales revenue and sales volume is primarily attributable to the increased availability of PCV13 products and other more advanced products in China. The following charts set forth the actual and forecast size of the pneumococcal vaccine market in terms of sales revenue and sales volume for the period indicated.

**PRC pneumococcal vaccine market by sales revenue, 2017-2030E**



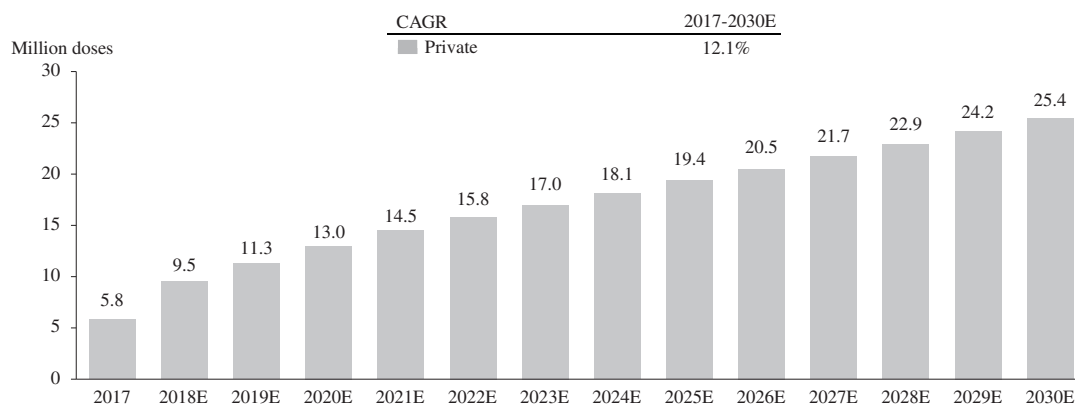
Source: CIC Report

- (1) Because Prevnar 13 is currently not approved for the age group of over 2 in China, the forecast does not take into account of sales for such age group.



## INDUSTRY OVERVIEW

### PRC pneumococcal vaccine market by sales volume<sup>(1)</sup>, 2017-2030E



Source: CIC Report

(1) Sales volume is estimated based on the lot release volume of vaccines.

Currently, PPV23 is the primary product in the PRC pneumococcal vaccine market, with a market share of 67.0% in 2017. In contrast, most developed countries predominantly use PCV13 products. Pfizer's Prevnar 13, commercialized since 2016, accounting for the remaining market share of 33.0% in China, is a PCV13 product that can be used in infants below 2 years old and proved to be effective in the elderly. Prevnar 13 has been a blockbuster vaccine since its launch, ranking first with a global market share of 12.8% in terms of 2017 sales revenue. PCV13 products (including Prevnar 13) and other more advanced products are expected to be more widely used in China, and as a result, the market size of pneumococcal vaccines is expected to increase significantly. In particular, the market size for PCV13 is expected to increase from RMB0.5 billion to RMB11.9 billion at a CAGR of 27.6% for the same periods.

### Competitive Landscape

China's pneumococcal vaccine market is a private vaccine market, therefore pneumococcal vaccines that are available or being developed target the private vaccine market. There are a number of PCV13 candidates at different development stages. Three vaccine candidates are in late stage development, including by Walvax, Minhai and Lanzhou Institute of Biological Products Co., Ltd. A summary of the competitive landscape of PCV13 vaccines and vaccine candidates in China is set out below.

Company	Stage of development	Age indication	Safety	Pricing
Pfizer	Commercialized	6 weeks to 15 months	Occasional adverse reactions include fever of 38 to 39 degrees Celsius, anorexia, irritability, erythema, swelling and tenderness at the injection site. Rare adverse reactions include fever of 39 to 40 degrees Celsius, fatigue and sleeping disorders. Extremely rare adverse reactions include fever of above 40 degrees Celsius.	Approximately RMB698

## INDUSTRY OVERVIEW

Company	Stage of development	Age indication	Safety	Pricing
Walvax	NDA-filed	3 months to 5 years old	–	N/A
Minhai	Phase III	2 months to 55 years old	–	N/A
Lanzhou Institute of Biological Products Co., Ltd.	Phase II	2 months to 23 months	–	N/A
Sinovac	Phase I	42 days and above	–	N/A
Chengdu Antejin Biotechnology Co., Ltd	CTA-approved	–	–	N/A
CanSinoBio	CTA-filed	2 months to 18 months	–	N/A

*Source: NIFDC, CIC Report*

For competitive landscape analysis, please refer to “Business – Our Vaccine Pipeline – Pneumococcal Vaccine Candidates – PCV13i – CTA-filed – Competition.”

PBPV is a serotype-independent, globally innovative pneumococcal vaccine candidate. Other than CanSinoBio, other companies, including GSK and Sanofi Pasteur, are also developing novel vaccines against pneumococcus that are not serotype-dependent, but none of them have been approved. It is expected that PBPV and PCV13 products will have limited competition when PBPV products become available in the market. Our PBPV product will target non-invasive pneumococcal diseases among the elderly above 65 years old, while PCV13 products such as Prevnar 13 are used for infants in China against invasive pneumococcal diseases.

For details on the pricing policy for our vaccine candidates, including our PCV13i and PBPV candidates, see “Business – Commercialization – Pricing Policy.”

## DIPHTHERIA, TETANUS, AND PERTUSSIS VACCINES

### Overview

Diphtheria, tetanus, and pertussis, or DTP, are serious diseases caused by bacteria. With high DTP vaccination rates of 99.6% in China in 2016, the incidence of diphtheria and tetanus have been well controlled. There have been no reported cases of diphtheria in China since 2006, and there were 93 reported cases of tetanus in 2017. However, a re-emergence of pertussis in the post-vaccination era has been reported in China with an upward trend of annual incidence of pertussis in recent years from approximately 1,300 cases in 2013 to approximately 10,400 cases in 2017, as well as increased mortality from this disease. As such, market demand for DTP vaccines, especially new and better vaccines, remain high, as discussed below. Due to high vaccination rates, the market potential for new and better vaccines is vast as they gradually replace older generation vaccines.

### Types of DTP Vaccines

There are two types of DTP vaccines in China, namely, co-purified DTaP vaccines and DTcP vaccines. The manufacturing process of co-purified DTaP vaccines involves co-purification of the pertussis antigens, which results in the quantities of each pertussis antigen

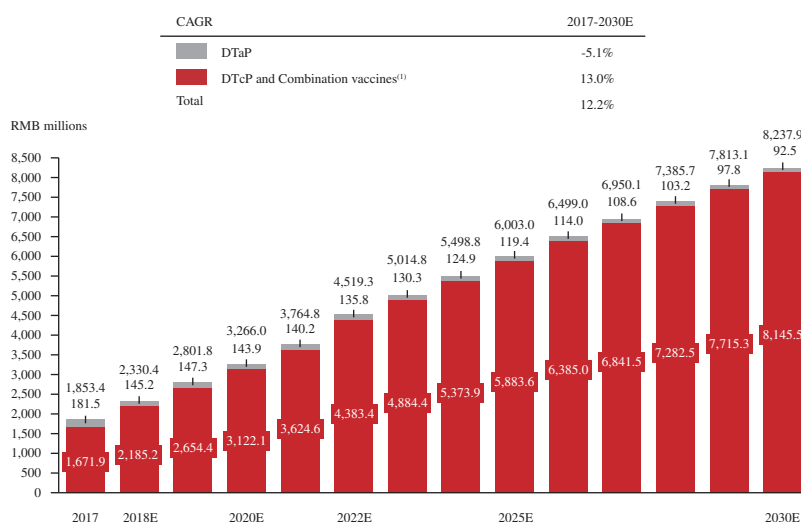
## INDUSTRY OVERVIEW

varying from batch to batch. In contrast, each pertussis antigen of DTcP vaccines is purified individually and are subsequently combined in a defined ratio, hence ensuring a fixed and consistent composition. In China, 96.4% of the current DTP market consists of co-purified DTaP vaccines in terms of sales volume. Immunity protection elicited by major pertussis antigens (FHA and PT) declines over time. However, unlike DTcP vaccines, co-purified DTaP vaccines in China only protect infants below 2 years old and cannot be effectively used as a booster vaccine to provide long-lasting immunity. In contrast, DTcP vaccines are the dominant DTP vaccines in most developed countries. It is expected that DTcP products will gradually replace co-purified DTaP vaccines in China. Moreover, there is a vaccine industry trend of increasing development of combination vaccines to encourage vaccination and reduce healthcare expenditure. DTcP products are a key backbone component of combination vaccines.

### Market for DTP Vaccines

China's DTP vaccine market is expected to enjoy a fast-paced expansion in the next decade with its sales revenue increasing from RMB1.9 billion in 2017 to RMB8.2 billion in 2030 at a CAGR of 12.2%. In terms of sales volume, the DTP vaccine market in the PRC is expected to increase slightly from 58.5 million doses in 2017 to 59.2 million doses in 2030, primarily due to the launch of innovative vaccines such as DTcP primary and booster vaccines for children. Except for co-purified DTaP vaccines, other types of DTP vaccines are all private market vaccines. As such, the market for DTaP vaccines represents the public vaccine market in the PRC, and the market for DTcP and combination vaccines represents the private vaccine market in the PRC. The following charts set forth the actual and forecast size of the DTP vaccine market in terms of sales revenue and sales volume for the period indicated.

**PRC DTP vaccine market by sales revenue, 2017-2030E**

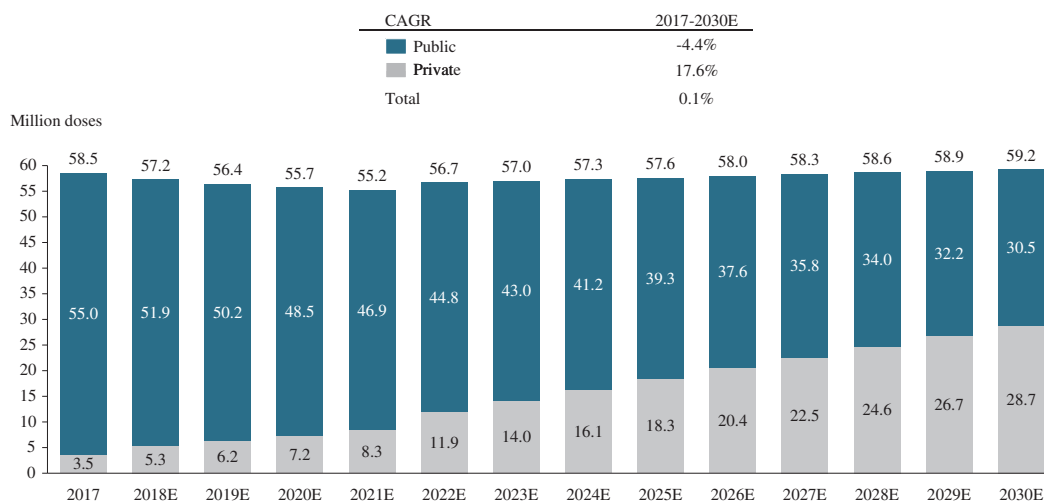


Source: CIC Report

(1) Combination vaccines include DTaP-Hib and DTcP-Hib-Polio.

## INDUSTRY OVERVIEW

### PRC DTP vaccine market by sales volume<sup>(1)</sup>, 2017-2030E



Source: CIC Report

(1) Sales volume is estimated based on the lot release volume of vaccines.

In 2017, 93.9% of the newborns were administered with co-purified DTaP vaccines. Although co-purified DTaP vaccines dominate the DTP market in terms of sales volume, DTaP vaccines account for a small share of the overall DTP market in terms of sales revenue because DTaP vaccines are relatively low-priced, being a public market vaccine. DTcP vaccines account for a significant portion of the market in terms of revenue due to their higher prices. As DTcP vaccines are expected to replace co-purified DTaP vaccines, DTcP vaccines are expected to account for an increasing share of the DTP market in terms of revenue and sales volume, resulting in the growth of private market vaccines and a decrease in public market vaccines for DTP. In addition, DTcP-based combination vaccines are expected to replace DTaP-based combination vaccines.

Historically, the DTP vaccine market in the PRC has been primarily focused on the newborn and infant population. In recent years, there has been a re-emergence of pertussis disease, particularly among adolescents and adults. The re-emergence of pertussis disease, coupled with the decreased protection of primary vaccination over time, creates a demand for DTcP booster vaccines for adolescents and adults. The targeted population for such vaccines in the PRC (based on the age indication of above 10 years old) was 1,240.3 million people in 2017, and is expected to increase to 1,293.2 million people in 2030. However, currently there are no DTP booster vaccines for adolescents and adults in China. See “– Competitive Landscape” below for details.

## INDUSTRY OVERVIEW

### Competitive Landscape

CanSinoBio's DTP vaccine pipeline, comprising DTcP Infant, DTcP Booster and Tdcp Adolescent and Adult candidates, target the private vaccine market. A summary of the competitive landscape of DTcP vaccines and vaccine candidates for primary vaccination in China is set out below.

Company	Stage of development	Age indication	Safety	Pricing
Sanofi Pasteur	Commercialized	2 months to 2 years old	Very common adverse reaction include vomiting, anorexia and somnolence. Common adverse reactions include fever, diarrhea and sleeping disorders.	Approximately RMB600
CanSinoBio	CTA-approved and at clinical trial stage	3 months to 2 years old	–	N/A
Beijing Bio-Institute Biological Products Co., Ltd.	CTA-approved	3 months to 2 years old	–	N/A

*Source: NIFDC, CIC Report*

There are no DTP booster vaccines for adolescents and adults in China. Currently, only one DTcP vaccine, Sanofi Pasteur's DTcP booster vaccine for the age group of 4 to 65, is in phase III clinical trial stage in China. However, it has been in phase III clinical trial stage since November 2013.

### EBOLA VACCINES

#### Overview

Ebola virus disease is a viral hemorrhagic fever of humans or other primates caused by Ebola viruses. The mortality rate of Ebola virus is approximately 50%, and has varied from 25% to 90% in past outbreaks. Since the first Ebola case occurred in 1976, by 2017, there have been 21 outbreaks (as defined by those with more than 30 cases). These outbreaks are primarily concentrated in African countries. The 2014 Ebola virus outbreak has been the most serious outbreak in history, with a total of 11,373 deaths.

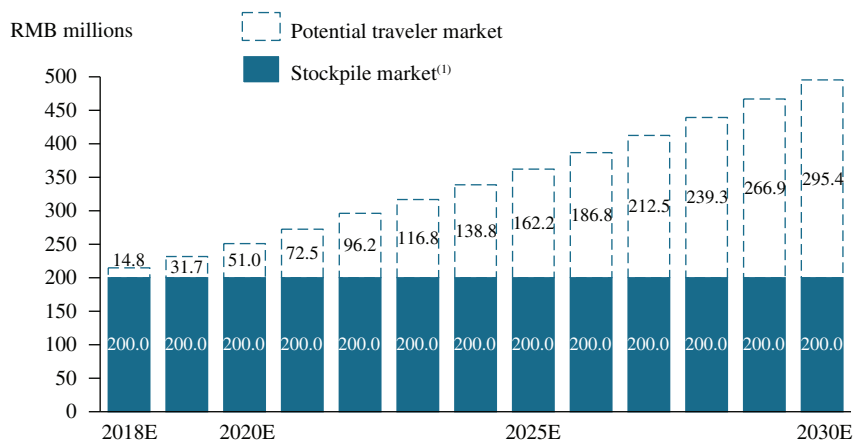
#### Market for Ebola Vaccines

The high frequency of outbreaks and mortality rate have raised global health concerns. Accordingly, the WHO and the PRC government are expected to purchase Ebola vaccines for emergency use and national stockpile, such market is a public market and is expected to remain relatively stable at RMB200 million. In addition, travelers to the African countries are expected

## INDUSTRY OVERVIEW

to be another potential private market for Ebola vaccines. The size of this market is forecasted to increase from RMB14.8 million in 2018 to RMB295.4 million in 2030 with a CAGR of 28.3%, primarily due to the growing number of travelers into Africa and increasing awareness of the Ebola vaccines. The following chart illustrates the forecast market size of Ebola vaccine market by sales revenue for the period indicated.

**Ebola vaccine market by sales revenue, 2018E-2030E**



Source: CIC Report

(1) Only includes the stockpile purchases by the WHO and China.

### Competitive Landscape

Currently, there are only two Ebola virus vaccines that have been approved in the world. Ad5-EBOV is the first approved Ebola virus vaccine in China for emergency use and national stockpile. Russia has also approved an Ebola vaccine. In addition to these two approved vaccines, there is a small number of Ebola vaccine candidates in phase II or phase III clinical trial stage or beyond. A summary of the competitive landscape of Ebola vaccines and vaccine candidates in China is set out below.

Vaccines/Vaccine candidates	Manufacturer/ Developer	Stage of development and country of approval process	Strain virus	Storage condition	Vaccine type	Safety (in terms of vaccine-related SAE)
Ad5-EBOV	CanSinoBio	Approved in China for emergency use and national stockpile	Ebola virus Makona (2014)	Stored at 2°C to 8°C for 12 months, and remains stable at 37°C for about three weeks	Inactive non-replicating vector vaccine	No vaccine-related SAEs was reported
GamEvac-combination vaccine	Gamaleya Research Institute	Approved in Russia Phase IV clinical trial	Ebola virus variant Mayinga (1976)	Stored at -16°C or below	Live attenuated virus vaccine	No vaccine-related SAEs were reported in its phase I/II clinical trial

## INDUSTRY OVERVIEW

Vaccines/Vaccine candidates	Manufacturer/ Developer	Stage of development and country of approval process	Strain virus	Storage condition	Vaccine type	Safety (in terms of vaccine-related SAE)
VSV-EBOV	Merck	Phase III clinical trial for FDA registration in the U.S. (being used in the latest 2018 Ebola outbreak)	Ebola virus Kikwit (1995)	Stored at -70°C or below, and remains stable for only one week at 4°C	Live attenuated virus vaccine, replicating	No vaccine-related SAEs was reported in its phase III clinical trial
Ad26.ZEBOV	Johnson & Johnson	Phase III clinical trial for FDA registration in the U.S.	Ebola virus variant Mayinga (1976)	Stored at -20°C for 12 months or longer and at 2°~8°C for 6 months	Live attenuated virus vaccine	No vaccine-related SAEs reported in its phase I clinical trial
CAD3-EBOV	GSK	Phase II clinical trial for FDA registration in the U.S.	Ebola virus Kikwit (1995)	Stored at -70°C or below, and remains stable for only one week at 4°C	Live attenuated virus vaccine	Vaccine-related SAEs were reported in phase I clinical trial

*Source: CFDA, FDA, CIC Report*

For competitive landscape analysis, please refer to “Business – Our Vaccine Pipeline – Ad5-EBOV – Approved for Emergency Use and National Stockpile – Competition.”

## TUBERCULOSIS VACCINE

### Overview

China has the world’s third largest TB-infected population. TB infection remains a major public health concern in China with annual incidence of approximately 0.9 million cases. TB is an air-borne disease. In recent years, multi-drug-resistant TB (MDR TB), including a strain particularly resistant to both isoniazid and rifampicin (which are currently the two most popular anti-TB drugs), has become an increasingly dangerous type of TB. In China, it is estimated there are 63,000 new MDR TB cases among the 0.9 million new cases of TB every year.

Currently, the only TB vaccine available on the market is BCG, which is offered to the public for free by the PRC government. However, the efficacy of BCG declines after 10 to 20 years from primary vaccination and no effective BCG booster vaccine is available. All newborns in the PRC are required to receive BCG vaccination, indicating a vast market potential for BCG booster vaccines. The targeted population for BCG booster vaccines in China (based on the age indication of 4 to 18 years old) is 222.8 million people in 2017, and is expected to increase to 235.9 million people in 2030.

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## INDUSTRY OVERVIEW

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### Competitive Landscape

To date, there is no BCG booster vaccine or vaccine candidate on the market. We are developing a globally innovative TB Booster as private market vaccines for the BCG-vaccinated population with an age indication of 4 to 18 years old. Zhifei is developing a TB vaccine, AEC/BC02, for primary vaccination, which is in phase I clinical trials. A summary of the competitive landscape of TB vaccine candidates being developed by PRC domestic companies is set out below.

<b>Vaccine candidate</b>	<b>Company</b>	<b>Stage of development</b>	<b>Target population</b>	<b>Age indication</b>	<b>Pricing</b>
TB Booster	CanSinoBio	Phase Ib (Canada)	BCG-vaccinated population	4 to 18 years old	N/A
AEC/BC02	Anhui Zhifei Longkema Biopharmaceutical Co., Ltd.	Phase I	TB carriers	18 to 45 years old	N/A

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*Source: CIC Report*

For competitive landscape analysis, please refer to “Business – Our Vaccine Pipeline – Tuberculosis Booster Vaccine (Ad5Ag85A) – Clinical Trial Stage Candidate – Competition.”



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## REGULATORY OVERVIEW

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### PRC LAWS AND REGULATIONS

As a foreign-invested enterprise engaged in the R&D, production and sales of vaccine, our business operation is subject to extensive supervision and regulation of Chinese government. This section sets out: (i) the profiles of the Chinese governmental agencies with jurisdiction over our operation; and (ii) the overview of the laws, regulations and policies we must comply with.

#### Regulatory Authorities

##### *MOFCOM*

MOFCOM is responsible for guiding and managing the foreign investment absorption in the country, drawing up the laws and regulations related to foreign investment, formulating the relevant rules, policies and reform schemes, organizing the implementation, supervising and inspecting the implementation status; participating in the formulation and joint issuance of Catalogue for Guidance of Foreign Investment Industries (《外商投資產業指導目錄》); managing and guiding the foreign investment review, approval and filing works.

##### *NMPA and Its Evaluation Center*

NMPA is the department in charge of the pharmaceutical industry of China. It is responsible for drawing up the laws and regulations related to pharmaceuticals and medical devices, making policy planning, formulating departmental regulations, organizing the development and issuance of pharmaceutical and medical device standards, classification and management systems, such as national formulary, and supervising the implementation.

The Center for Drug Evaluation of NMPA is the technical evaluation unit for drug registration with NMPA. It is mainly responsible for conducting technical evaluation on the drugs applying for registration and verifying the relevant drug registrations.

##### *NHFPC*

NHFPC is responsible for the overall planning and allocation of the health and family planning service resources, organization of the development of national drug policies and national essential drug system, and the supervision and management of public health and medical services. NHFPC develops immunization strategy and planning and has direct influence on the vaccine industry.

According to the Plan for Restructuring State Council (《國務院機構改革方案》) issued on March 17, 2018 by the NPC, NHFPC will be included into the newly established National Health Commission, the drug supervision function of CFDA will be transferred to NMPA (under the administration of the newly established State Market Regulatory Administration), market regulation will adopt level-to-level administration, only provincial level drug regulatory organizations will be set, and the supervision on the drug operation and sales will

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## REGULATORY OVERVIEW

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be assumed by municipal or county market regulatory authorities. After the restructuring of State Council, NHFPC and CFDA will be removed. According to the Plan for Deepening Reform of the Party and State Institutions (《深化黨和國家機構改革方案》) issued by the Central Committee of the Communist Party of China on March 2018, the aforesaid institutional restructuring shall be finished by the end of 2018.

### *NIFDC*

NIFDC is a public institution directly subordinate to CFDA and the statutory authority and supreme technical arbitration institution for inspecting the quality of pharmaceuticals and biological products. It is responsible for the approval and registration inspection, import inspection, supervision and inspection, safety evaluation of drugs, biological products, medical devices, foods, dietary supplements, cosmetics, laboratory animals and package materials and the batch release of biological products, the research, distribution and management of the national drug and medical device reference materials and bacterial and viral strains for production verification, as well as the relevant technical research.

### *Chinese CDC*

Chinese CDC is a public welfare institution established by the government to implement the national-level disease control and prevention and the public health technology management and services. Its main responsibility is to enhance the research on the disease control and prevention strategies and measures, participate in the vaccine research, carry out vaccine application result evaluation and immunity planning strategy research, and provide technical guidance and assessment on the implementation of the national immunity strategy under the leadership of NHFPC and the key tasks in national disease control and prevention.

## **Regulatory Provisions**

### *Laws and Regulations Related to Chinese-foreign Joint Venture*

The PRC Company Law was passed by the NPC Standing Committee on December 29, 1993 and came into effect on July 1, 1994. It was revised for several times afterwards, and the latest version was implemented on March 1, 2014. According to the PRC Company Law, companies may adopt 2 forms: limited liability company or joint stock company. The PRC Company Law is also applicable to the limited liability companies and joint stock companies invested by foreigners, unless otherwise specified in the relevant laws and regulations.

The Law on Chinese-Foreign Equity Joint Ventures (《中華人民共和國中外合資經營企業法》) was passed by the second session of the NPC on July 1, 1979 and issued and implemented on July 8, 1979. It was revised for several times afterwards, and the latest version was implemented on October 1, 2016. Implementation Rules for the Law on Chinese-Foreign Equity Joint Ventures was issued by the State Council on September 20, 1983. It was revised for several times afterwards, and the latest version was implemented on March 1, 2014. The provisions of the Law on Chinese-Foreign Equity Joint Ventures (《中華人民共和國中外合資

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經營企業法》) and its implementation rules cover the issues related to the Chinese-foreign joint ventures, such as the establishment and approval procedures, registered capital requirement, foreign exchange, accounting management, tax and labor.

According to the Catalogue for the Guidance of Foreign Investment Industries (《外商投資產業指導目錄》) and the Provisions for Guiding Foreign Investment Direction (《指導外商投資方向規定》) issued by the State Council on February 11, 2002 and implemented on April 1, 2002, the foreign-invested projects can be classified into the following categories by industries: encouraged, permitted, restricted and prohibited. The industries not listed in the catalogue belong to the permitted investment projects. According to the Catalogue for the Guidance of Foreign Investment Industries (Revised in 2017) (《外商投資產業指導目錄(2017年修訂)》), the production of AIDS vaccine, HCV vaccine, contraceptive vaccine and such new vaccines as cervical cancer vaccine, malaria vaccine and hand-foot-and-mouth disease vaccine belongs to encouraged industry.

On June 30, 2018, MOFCOM implemented issued Provisional Measures for Filing Administration of Establishment and Changes of Foreign-invested Enterprises (revised on June 29, 2018) (《外商投資企業設立及變更備案管理暫行辦法》), which stipulated that only filing is needed for the establishment and change of the foreign-invested enterprises with no special administrative measures on the admission of foreign investors. The foreign-invested enterprises or their investors shall truly, accurately and completely provide the filing information and fill out the filing application commitment according to the Measures, and shall not have any false statement, misleading representation or major omission. The NDRC and MOFCOM jointly issued the latest Special Management Measures (Negative List) for the Access of Foreign Investment (2018) on June 28, 2018, which will come into effect on July 28, 2018. The negative list has no restrictions on vaccine industry.

On February 28, 2018, the General Office of MOFCOM and General Office of SAIC jointly issued the Circular on Works Related to the Implementation of Single Window and Single Form Acceptance for Commercial Filing and Business Registration of Foreign-Investment Enterprises (Shang Ban Zi Han (2018) No. 87) (《關於實行外商投資企業商務備案與工商登記“單一窗口、單一表格”受理有關工作的通知》), in order to implement the requirements of the State Council to accelerate the “all-in-one certificate” reform, enhance the communication and data sharing between the commercial administration and industrial and commercial administration, optimize the foreign-invested enterprise application and establishment procedures, reduce the handling time and reduce the enterprise cost. Single Window and Single Form Acceptance for Commercial Filing and Business Registration of Foreign-Investment Enterprises was implemented on June 30, 2018, so as to “enhance information sharing and save efforts of enterprises” and practically improve the sense of gain of the foreign-invested enterprises.

### ***Laws and Regulations Related to Drugs***

Drug Administration Law of the People’s Republic of China (《中華人民共和國藥品管理法》) and Implementation Rules for Drug Administration Law of the People’s Republic of China (《中華人民共和國藥品管理法實施條例》) provided legal framework for the

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establishment of drug manufacturing enterprises and drug trading enterprises as well as the drug administration. Law of the People's Republic of China on the Prevention and Treatment of Infectious Diseases (《中華人民共和國傳染病防治法》) established a planned vaccination system for the country. Regulation on the Administration of Circulation and Vaccination of Vaccines (《疫苗流通和預防接種管理條例》) had specific provisions on the circulation of vaccines.

Drug Administration Law of the People's Republic of China (《中華人民共和國藥品管理法》) was passed by the 7th session of Standing Committee of the Sixth National People's Congress on September 20, 1984. It was revised for several times afterwards, and the latest version came into effect on April 24, 2015. This law stipulated the administration framework on the drug manufacturing enterprises and drug trading enterprises as well as the drug development, research, manufacturing, distribution, package, pricing and advertisement.

Implementation Rules for Drug Administration Law of the People's Republic of China (《中華人民共和國藥品管理法實施條例》) was issued by the State Council on August 4, 2002 and revised on February 6, 2016. It provided detailed implementation rules for the revised Drug Administration Law of the People's Republic of China (《中華人民共和國藥品管理法》).

Law of the People's Republic of China on the Prevention and Treatment of Infectious Diseases (《中華人民共和國傳染病防治法》) was passed by the 6th session of Standing Committee of the Seventh National People's Congress on February 21, 1989. It was revised for several times afterwards, and the latest version came into effect on June 29, 2013. It classified infectious diseases into classes A, B and C. Infectious diseases of class B include epidemic cerebrospinal meningitis, pertussis, diphtheria, viral hepatitis and poliomyelitis. Law of the People's Republic of China on the Prevention and Treatment of Infectious Diseases (《中華人民共和國傳染病防治法》) established the planned vaccination system of the country and implemented vaccination certificate system for children. The vaccinations under the state immunity program are free of charge.

Based on Drug Administration Law of the People's Republic of China (《中華人民共和國藥品管理法》) and Law of the People's Republic of China on the Prevention and Treatment of Infectious Diseases (《中華人民共和國傳染病防治法》), the State Council formulated and issued Regulation on the Administration of Circulation and Vaccination of Vaccines (《疫苗流通和預防接種管理條例》) on March 24, 2005 and revised this regulation on April 23, 2016. According to Regulation on the Administration of Circulation and Vaccination of Vaccines (《疫苗流通和預防接種管理條例》), there are two types of vaccine. The first type of vaccine refers to the vaccine provided by the government to the citizens free of charge and inoculated by the citizens according to the regulations of the government, including the vaccines specified in the national immunity program, the vaccines added by the governments of the provinces, autonomous regions and municipalities directly under the central government when implementing the national immunity program, and the vaccines used for the emergency vaccination or mass vaccination organized by the government above the county-level or its health authority. The second type of vaccine refers to the vaccines inoculated by the citizens at their own will and expense.

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On January 15, 2017, the General Office of State Council issued Opinions on Further Enhancing Administration of Circulation and Vaccination of Vaccines (Guo Ban Fa [2017] No. 5) (《關於進一步加強疫苗流通和預防接種管理工作的意見》(國辦發[2017]5號)), so as to, on one hand, promote the independent R&D and quality improvement of vaccines, support the R&D and industrialization of new vaccines (especially the polyvalent vaccines), enhance the construction of industry and technology innovation strategic alliances and support the qualified vaccine R&D projects through the national scientific and technological programs (special programs, funds, etc.) and key and special scientific research projects, and on the other hand, enhance vaccine circulation process management, including regulating the collective purchase of vaccines, enhancing the vaccine cold chain distribution management and vaccine tracing management.

### *Clinical Trial*

According to the Measures for Administration of Drug Registration (《藥品註冊管理辦法》) issued by CFDA on July 10, 2007 and implemented on October 1, 2007, clinical trial shall be conducted when applying for new drug application. Clinical trial includes phase I, II, III and IV.

Phase I clinical trial: Preliminary clinical pharmacology and human safety evaluation test. The tolerability of the human body to the new drug and the pharmacokinetics would be observed, so as to provide basis for the development of dosing regimen.

Phase II clinical trial: Preliminary efficacy evaluation stage. Its purpose is to preliminarily assess the efficacy of the drug on the patients of the target indication and its safety, and to provide basis for the design of phase III clinical trial and the development of dosing regimen.

Phase III clinical trial: Efficacy confirmation stage. Its purpose is to further verify the efficacy of the drug on the patients of the target indication and its safety, assess the benefit and risk, and ultimately provide sufficient basis for the drug registration application.

Phase IV clinical trial: Application research stage after the new drug is launched in the market. Its purpose is to investigate the efficacy and side effects of the drug when extensively used, assess the benefit and risk of using the drug in common people or special population, and improve the administration dosage.

According to the Announcement of Certain Policies on Examination and Approval of Drug Registration (《國家食品藥品監督管理總局關於藥品註冊審評審批若干政策的公告》) issued by CFDA on November 11, 2015, the application of clinical trial of new drugs shall be approved on a once-off basis, and no longer be filed, reviewed and approved for each phase. After the completion of Phase I and Phase II clinical trials, the applicants should submit the test results and the clinical trial plan of next phase in time. If no safety problems are found, the clinical trial can enter into the next phase after communicating with the Center for Drug Evaluation of CFDA. The applicants should faithfully report serious adverse events in clinical

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trials and submit annual research reports on time. If safety risks in clinical trials cannot be controlled, they should be stopped immediately. The Center for Drug Evaluation of CFDA should communicate with the applicant in person and formulate meeting minutes listing the agreed items.

According to the Announcement on Adjusting the Procedures for Examination and Approval of Drug Clinical Trials (《國家藥品監督管理局關於調整藥物臨床試驗審評審批程序的公告》) issued by NMPA on July 24, 2018, when applying for drug clinical trials, the applicants can conduct clinical trials according to the submitted plan if they have not received a negative or doubtful feedback from the Center for Drug Evaluation of NMPA within 60 days from the date of acceptance.

According to the Opinions on Deepening the Reform on Examination and Approval System and Encouraging the Innovation of Drugs and Medical Devices (《關於深化審評審批制度改革鼓勵藥品醫療器械創新的意見》) formulated by the General Office of the CPC Central Committee and the State Council in October of 2017, the overseas clinical trial data is accepted. The clinical trial data obtained from overseas multi-centers can be used to apply for registration in China if they meet the relevant requirements for the registration of drugs and medical devices in China. For the drugs and medical devices first applies to market in China, the applicant should provide clinical trial data on whether there are ethnic differences.

On July 6, 2018, NMPA promulgated the Technical Guidelines on Accepting Overseas Clinical Trial Data (《接受藥品境外臨床試驗數據的技術指導原則》), according to which the applicant shall ensure the authenticity, completeness, accuracy and traceability of overseas clinical trial data.

### Quality Control Regulations

On August 6, 2003, CFDA issued Good Clinical Practice for Drug Trials (GCP) (《藥物臨床試驗質量管理規範》), which was implemented on September 1, 2003. All the clinical trials, in whatever phases, human bioavailability or bioequivalence studies shall be carried out according to GCP. The provisions of GCP cover the whole process of drug clinical trial, and specify the responsibilities of the clinical trial participants (including the investigator, sponsor and inspector), in order to ensure the scientificity and reliability of the study results and protect the safety and interests of the subjects. Protocol shall be developed before the clinical trial. The protocol shall be determined and signed by the investigator and sponsor and submitted to the ethics committee for review and approval before implementation. The clinical trial protocol shall include the following contents:

- Study title;
- Study purpose, study background, findings in the pre-clinical study which are clinically significant and the clinical trial result related to the study, the known possible risk and benefits for human body, and the possibility of the ethnic differences of the investigational product;



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- The name and address of the sponsor, the study site, name, qualification and address of the investigator;
- The type of clinical trial design, randomized grouping method and blind level;
- The subject inclusion criteria, exclusion criteria and removal criteria, steps for selecting subjects, subject allocation method;
- The number of cases needed to reach the intended purpose calculated according to principle of statistics;
- The formulation, dosage, administration path, administration method, administration times, course of treatment and rules on drug combination, instructions on package and label of the investigational product;
- Items for clinical and laboratory inspection, measurement times and pharmacokinetic analysis;
- Registration and use record, delivery, distribution method and storage conditions of the investigational product;
- Clinical observations, follow-up visit and measures to ensure subject compliance;
- Standards for suspending clinical trial, regulations for terminating clinical trial;
- Efficacy rating standards, including the parameter rating method, observation time, record and analysis;
- Storage procedures for the subject codes, random number table and Case Report Form;
- Record requirement of adverse events and the report method, handling measures, follow-up visit, time and prognosis of severe adverse events;
- Establishment and storage of codes for investigational products, unblinding method and the rules for unblinding upon emergency;
- Statistical analysis plan, definition and selection of statistical analysis data set;
- Regulations on data management and data traceability;
- Quality control and quality assurance of clinical trial;
- Study-related ethics;

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- Estimated progress and completion date of clinical trial;
- Follow-up visit and medical treatment after the end of the study;
- Liabilities of the relevant parties and other relevant regulations;
- References.

On May 22, 2017, CFDA issued the Announcement of the Opinions on Handling Issues Related to Verification of Drug Clinical Trial Data (《關於藥物臨床試驗數據核查有關問題處理意見的公告》), according to which, if the clinical trial data is incomplete, ill-formed and insufficient to prove the safety and efficacy of the drug, the registration application of the drug will be rejected; if the clinical trial is carried out against the relevant laws, regulations and GCP, and the interests and safety of the subjects and the data quality of the drug clinical trial are significantly prejudiced, the institution carrying out the clinical trial shall be ordered to make rectification, and it shall not undertake any new clinical trial and shall not include any new cases in the existing clinical trials during the rectification period; the institution that fails to make rectification as required shall be subject to legal investigation and punishment.

### Application Procedures

When the applicant completes the pre-clinical study, it shall fill out the Drug Registration Application Form (《藥品註冊申請表》) and submit the relevant materials truthfully to the drug supervision and administration department of the province, autonomous region or municipality directly under the central government where it is domiciled. The drug supervision and administration department of the province, autonomous region or municipality directly under the central government shall carry out formality review on the application materials, and issue the drug registration application acceptance notice if the relevant materials meet the relevant requirements, or issue the drug registration application rejection notice and provide explanation if the relevant materials fail to meet the relevant requirements.

The drug supervision and administration department of the province, autonomous region or municipality directly under the central government shall organize the onsite inspection on the drug development and source materials in 5 days after accepting the application, in order to conduct preliminary review on the application materials and provide review comments. If the drug applying for registration belongs to biological product, samples from 3 different batches shall be taken for inspection, and registration inspection notice shall be provided to the institute for drug control.

The drug supervision and administration department of the province, autonomous region or municipality directly under the central government shall submit the review comments, verification report and application materials to the Center for Drug Evaluation of CFDA within time limit and notify the applicant.



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The institute for drug control receiving the registration inspection notice shall inspect the samples according to the drug standards declared by the applicant, recheck the declared drug standards, submit the drug registration inspection report to the Center for Drug Evaluation of CFDA within time limit and send a copy to the applicant.

When receiving the application materials, the Center for Drug Evaluation of CFDA shall organize pharmaceutical, medical and other technical specialists to carry out technical review on the application materials within specified time, ask the applicant to provide supplementary materials and provide the relevant explanations when necessary. When the technical review is completed, technical review comments shall be made and submitted to the CFDA together with the relevant materials.

The CFDA shall make approval/disapproval decision based on the technical review comments. If the application meets the relevant requirements, Approval for Drug Clinical Trial (《藥物臨床試驗批件》) will be issued; if not, Review Comment Notice (《審批意見通知件》) will be issued, and explanations will be provided.

### *Drug Registration*

#### New Drug Registration

When the applicant completes the drug clinical trial, it shall fill out the Drug Registration Form (《藥品註冊申請表》), submit the production application materials to the drug supervision and administration department of the province, autonomous region or municipality directly under the central government where it is domiciled, and submit the raw materials for manufacturing the standard product and the research materials on the standard substances to NIFDC. The drug supervision and administration department of the province, autonomous region or municipality directly under the central government shall carry out formality review on the application materials, and issue the drug registration application acceptance notice if the relevant materials meet the relevant requirements, or issue the drug registration application rejection notice and provide explanation if the relevant materials fail to meet the relevant requirements.

The drug supervision and administration department of the province, autonomous region or municipality directly under the central government shall organize the onsite inspection on the clinical trial and source materials in 5 days after accepting the application, in order to conduct preliminary review on the application materials and provide review comments. For drugs other than biological products, 3 batches of samples shall be taken, and notice shall be provided to the institute for drug control for standard review. The drug supervision and administration department of the province, autonomous region or municipality directly under the central government shall submit the review comments, verification report and application materials to the Center for Drug Evaluation of CFDA within time limit and notify the applicant.

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NIFDC shall recheck the declared drug standards, submit the review comments to the Center for Drug Evaluation of CFDA within time limit and send a copy to the drug supervision and administration department of the province, autonomous region or municipality directly under the central government requested for review and the applicant.

When receiving the application materials, the Center for Drug Evaluation of CFDA shall organize pharmaceutical, medical and other technical specialists to carry out review on the application materials within specified time, ask the applicant to provide supplementary materials and provide the relevant explanations when necessary. If the application is judged to meet the relevant requirements, the Center for Drug Evaluation of CFDA will notify the applicant to apply for production site inspection and provide a notice to the Certification Committee for Drugs of CFDA; if it is judged that the application fails to meet the relevant requirements, the Center for Drug Evaluation of CFDA will submit the review comments and relevant materials to the CFDA. The CFDA shall make disapproval decision based on the technical review comments, issue the Review Comment Notice (《審批意見通知件》) and provide explanations.

The applicant shall submit onsite inspection application to the Certification Committee for Drugs of CFDA within 6 months after receiving the production site inspection notice.

When receiving the onsite inspection application, the Certification Committee for Drugs of CFDA shall organize onsite inspection on the mass production process of the samples within 30 days to verify the feasibility of the production process, take 1 batch of samples (3 batches for biological products) and deliver to NIFDC conducting the drug standard review for inspection, and submit the production site inspection report to the Center for Drug Evaluation of CFDA in 10 days after the onsite inspection is completed. The samples shall be produced in the workshops that have obtained the Good Manufacturing Practice (《藥品生產質量管理規範》) certificate. For the new drug manufacturer, new drug production workshop of the existing drug manufacturer and the production of new formulation, the sample production process shall meet the requirements of the Good Manufacturing Practice (《藥品生產質量管理規範》).

NIFDC shall inspect the samples according to the verified drug standards, submit the drug registration inspection report to the Center for Drug Evaluation of CFDA within time limit and send a copy to the drug supervision and administration department of the relevant province, autonomous region or municipality directly under the central government and the applicant.

The Center for Drug Evaluation of CFDA shall generate an overall opinion based on the technical review comments, sample production site inspection report and sample inspection result, and submit to the CFDA together with the relevant materials. The CFDA shall make approval/disapproval decision based on the overall opinion. If the application meets the relevant requirements, new drug certificate will be issued.

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The Measures for Administration of Drug Registrations (《藥品註冊管理辦法》) also applies to clinical development of vaccines. According to the Regulation, for a vaccine or other special drugs prepared during the strains selection stage, if there is neither suitable animal experimental model nor a way to evaluate the efficacy of them in the laboratory, CTA may be made to CFDA, provided that safety of the subjects can be ensured.

An applicant may, according to its proposed specifications on clinic trial samples, test the clinical trial drugs independently or entrust the test to a drug testing institute specified in these Measures. Vaccines, blood products and other bio-products designated by CFDA shall be inspected by the drug control institutes designated by CFDA.

### Drug Re-registration

The validity period of the drug approval issued by the CFDA is 5 years. If the drug needs to be produced after the expiry of the approval, the applicant shall apply for re-registration 6 months prior to the expiry.

The drug re-registration shall be made to the drug supervision and administration department of the relevant province, autonomous region or municipality directly under the central government by the drug approval holder, who shall fill the Drug Re-registration Application Form (《藥品再註冊申請表》) and provide the relevant application materials according to the relevant regulations.

The drug supervision and administration department of the province, autonomous region or municipality directly under the central government shall conduct review on the application materials, and issue the drug re-registration application acceptance notice if the relevant materials meet the relevant requirements, or issue the drug re-registration application rejection notice and provide explanation if the relevant materials fail to meet the relevant requirements.

The drug supervision and administration department of the province, autonomous region or municipality directly under the central government shall conduct review on the drug re-registration application in 6 months after accepting the application. If the application meets the relevant requirements, the drug shall be registered again; if not, it shall report to the CFDA.

### *Drug Manufacturing*

The CFDA issued Measures for Supervision and Administration of Drug Manufacturing (《藥品生產監督管理辦法》) on August 5, 2004 according to Drug Administration Law (《中華人民共和國藥品管理法》) and its implementation rules. On November 17, 2017, the CFDA issued the revised Measures for Supervision and Administration of Drug Manufacturing (《藥品生產監督管理辦法》). According to the Measures, the application for Good Manufacturing Practice (《藥品生產質量管理規範》) certification shall be made to the relevant drug supervision and administration department according to the regulations of the CFDA for the new drug manufacturer, new drug production workshop of the existing drug manufacturer and the production of new formulation in 30 days after obtaining the drug manufacturing license or production approval, in order to obtain the relevant certificate.

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In addition, the new drug manufacturer shall be approved and issued with the Drug Manufacturing License (《藥品生產許可證》) by the drug supervision and administration department of the province, autonomous region or municipality directly under the central government where it is domiciled. It shall not manufacture drugs without the Drug Manufacturing License (《藥品生產許可證》).

### *Sales of Vaccines*

The CFDA issued Measures for Administration of Batch Release of Biological Products (《生物製品批簽發管理辦法》) on December 13, 2002. On December 29, 2017, the CFDA issued the revised Measures for Administration of Batch Release of Biological Products (《生物製品批簽發管理辦法》), which was implemented on February 1, 2018. According to the Measures, the vaccine products with marketing approval shall be subject to document review, onsite verification and sample inspection by the designated drug control institution and pass the biological product batch release approval before the marketing and sales of each batch of products. The products that fail to pass the batch release approval shall not be marketed and sold.

According to Regulation on the Administration of Circulation and Vaccination of Vaccines (《疫苗流通和預防接種管理條例》), vaccine manufacturers shall supply public vaccines to the provincial disease prevention and control institutions or other designated disease prevention and control institutions according to the government purchase contract, and shall not supply to other entities or persons. The private vaccines shall be subject to collective purchase organized by the provincial disease prevention and control institutions on the provincial public resource trading platform, and purchased by the county level disease prevention and control institutions from the vaccine manufacturers, and then supplied to the local vaccination units.

According to the Opinions on Further Enhancing Vaccine Circulation and Vaccination Administration (《國務院辦公廳關於進一步加強疫苗流通和預防接種管理工作的意見》) issued by the General Office of State Council, both the public vaccines and private vaccine should be procured online on the provincial public resource trading platform in accordance with the principles of transparency, competition, and fair trade. Thus, there is no material difference in the procedure of centralized procurement for public and private vaccines.

According to the Government Procurement Law of PRC (《中華人民共和國政府採購法》), vaccine suppliers shall meet the following requirements as a supplier in government procurement:

- (i) Having the capacity to assume civil liabilities independently;
- (ii) Having a good business reputation and sound financial and accounting systems;
- (iii) Having the equipment and professional expertise needed for performing contracts;
- (iv) Having a clean record of paying taxes and making financial contributions to social security funds in accordance with law;

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- (v) Having committed no major breaches of law in its business operation in the three years prior to its participation in the procurement; and
- (vi) Other requirements provided for in laws and administrative regulations.

The other specific requirements may differ slightly from province to province, but generally speaking, vaccine suppliers should possess qualifications required for vaccine manufacturers, including but not limited to the Drug Manufacturing Certificate, GMP Certificate and drug registration approval.

The categories of public vaccines are determined by the government and will be purchased directly at the provincial public resources trading platform by the provincial CDCs or other disease prevention and control institutions designated by the provincial CDCs. For private vaccines, the immunization unit shall, based on the need of immunization, formulate purchase plans and report such plans to the competent health department of the people's government and CDC at the county level. The provincial CDC will usually review the plan and issue a Catalogue for the Centralized Procurement of Selected Vaccines (《集中採購中選疫苗目錄》), from which the CDCs at the county level can pick out and sign government procurement contract with.

### *Storage and Transportation of Vaccines*

On December 15, 2017, the NHFPC and the CFDA jointly issued the Notice for Distributing Regulations on Administration of Vaccine Storage and Transportation (2017 Edition) (《關於印發疫苗儲存和運輸管理規範(2017年版)的通知》), which revised the Regulations on Administration of Vaccine Storage and Transportation (Wei Ji Kong Fa (2006) No. 104) (《疫苗儲存和運輸管理規範》(衛疾控發[2006]104號)) according to the Opinions on Further Enhancing Vaccine Circulation and Vaccination Administration (《關於進一步加強疫苗流通和預防接種管理工作的意見》) issued by the General Office of State Council, and required that the disease prevention and control institutions, vaccination units, vaccine manufacturers, vaccine distribution enterprises and vaccine warehousing enterprises shall be equipped with the storage and cold chain transportation facilities and equipment that can guarantee the vaccine quality, and they shall store and transport the vaccines strictly according to the vaccine storage and transportation temperature requirements specified in the instructions for use of vaccine and Vaccination Work Standards (《預防接種工作規範》).

When supplying the vaccines, the vaccine manufacturer shall provide the consignee with such document and information as the type of vaccine transportation equipment, departure and arrival time, vaccine transportation temperature record during the transportation, dispatch list and receipt form. When receiving or purchasing vaccines, the disease prevention and control institutions and vaccination units shall request for and inspect the copies of the Certificate of Conformity for Batch Release of Biological Product (《生物製品批簽發合格證》) provided by the vaccine manufacturer or vaccine distribution enterprise. When receiving the goods, the type of the vaccine transportation equipment and the vaccine transportation temperature record during the transportation shall be verified. The following items shall be verified and recorded:

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vaccine carrier, vaccine cold storage method, vaccine name, manufacturer, specifications, batch number, validity period, quantity, purpose, departure and arrival time, vaccine storage temperature and ambient temperature at the departure and arrival time. Only the vaccines with complete documents and meeting the cold chain transportation temperature requirements can be accepted.

### **Long Term Efficacy and Safety of Vaccines**

On October 14, 2005, the CFDA promulgated the Notice on Issuing Six Technical Guidelines (《關於印發<預防用疫苗臨床前研究技術指導原則>等6個技術指導原則的通知》), including the Technical Guidelines on Preclinical Study of Preventive Vaccines (《預防用疫苗臨床前研究技術指導原則》), the Technical Guidelines on the Management on the Change of Production Process of Biological Products (《生物製品生產工藝過程變更管理技術指導原則》), the Technical Guidelines on the Preclinical and Clinical Studies of Combined Vaccines (《聯合疫苗臨床前和臨床研究技術指導原則》), the Technical Guidelines on the Production and Quality Control of Polypeptide Vaccines (《多肽疫苗生產及質控技術指導原則》), the Technical Guidelines on the Quality Control and Clinical Research of Combined Vaccines (《結合疫苗質量控制和臨床研究技術指導原則》), the Guiding Principles on the Grading Standard for Adverse Reactions in Clinical Trials of Preventive Vaccines (《預防用疫苗臨床試驗不良反應分級標準指導原則》). These Guidelines specify the requirements on preclinical research, change of production process, quality control in clinical stages of vaccine to ensure its safety and efficacy.

According to the Guiding Opinions on Promoting the Sound Development of the Pharmaceutical Industry (《國務院辦公廳關於促進醫藥產業健康發展的指導意見》) issued by the General Office of the State Council on March 4, 2016, the main tasks of the future development consist of improving quality control technology, including but not limited to enhancing the safety and efficacy of vaccines and other biological products.

### ***Intellectual Property***

#### ***Patent***

According to the Patent Law of the People's Republic of China (《中華人民共和國專利法》) revised by the Standing Committee of the National People's Congress on December 27, 2008 and taking effect on October 1, 2009 (the “**Patent Law**”), when the invention or utility model patent is granted, unless otherwise stipulated in the Patent Law, without the approval of the patent owner, no entity or person shall implement the relevant patent, that is, manufacture, use, offer to sell, sell or import the patented products for business purpose, or use the patented method and use, offer to sell, sell or import the products directly obtained with the patented method. When the appearance design patent is granted, without the approval of the patent owner, no entity or person shall implement the relevant patent, that is, manufacture, use, offer to sell, sell or import the patented products incorporating the patented design. In the event that a patent is owned by two or more co-owners without an agreement regarding the distribution of revenue generated from the exploitation of any co-owner of the patent, such revenue shall be distributed among all the co-owners.



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## REGULATORY OVERVIEW

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Implementing the patent without the approval of the patent owner constitutes the infringement of patent rights. Any dispute in connection with this shall be resolved by the relevant parties through negotiation. If the relevant parties refuse to negotiate or the negotiation fails, the patent owner or the relevant stakeholders may file a lawsuit in the people's court or turn to the patent administration authorities for handling. If the relevant patent administration authority determines that there exists infringement, it shall order the infringer to stop the infringement immediately. The party concerned that disagrees to the order may bring a lawsuit in a people's court according to the Administrative Procedure Law of the People's Republic of China (《中華人民共和國行政訴訟法》) in 15 days after receiving the handling notice. If the infringer neither raises litigation nor stops the infringement upon the expiry of the 15-day period, the relevant patent administration authority may turn to the people's court for enforcement. The relevant patent administration authority may, upon the request of the relevant parties, conduct mediation on the compensation for the patent infringement. If the mediation fails, the parties concerned may bring a lawsuit in a people's court according to the Civil Procedure Law of the People's Republic of China (《中華人民共和國民事訴訟法》).

### *Trademark*

According to the Trademark Law of the People's Republic of China (《中華人民共和國商標法》) revised by the Standing Committee of the National People's Congress on August 30, 2013 and taking effect on May 1, 2014 (“**Trademark Law**”), the registered trademark has a validity period of 10 years starting from the registration date. The trademark registrant enjoys the exclusive right to use the trademark. According to Article 57 of the Trademark Law, any of the following acts shall be an infringement of the exclusive right to use a registered trademark:

- Using a trademark that is identical with a registered trademark in respect of the same goods without the authorization from the trademark registrant;
- Using a trademark that is similar to a registered trademark in respect of the same goods or using a trademark that is identical with or similar to a registered trademark in respect of the similar goods, which can cause confusion, without the authorization from the trademark registrant;
- Selling goods that infringe the exclusive right to use a registered trademark;
- Counterfeiting, or making, without authorization, representations of a registered trademark of another person, or selling such representations of a registered trademark as were counterfeited, or made without authorization;
- Replacing the trademark registrant's registered trademark without authorization, and selling goods bearing such a replaced trademark;
- Facilitating the infringement on the exclusive right of another person to use a registered trademark, or helping another person to commit the infringement on the exclusive right to use a registered trademark;
- Causing, in other respects, prejudice to the exclusive right of another person to use a registered trademark.

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## REGULATORY OVERVIEW

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Any dispute in connection with the activities the infringe the exclusive right to use a registered trademark set out in Article 57 of the Trademark Law shall be resolved by the relevant parties through negotiation. If the relevant parties refuse to negotiate or the negotiation fails, the trademark registrant or the relevant stakeholders may file a lawsuit in the people's court or turn to the industrial and commercial administrative department for handling.

If the industrial and commercial administrative department determines that there exists infringement, it shall order the infringer to stop the infringement, confiscate and destroy the infringing goods and the tools used to manufacture the infringing goods and counterfeiting the registered trademark, and impose a penalty of less than 5 time of the illegal business income if the illegal business income exceeds RMB50 thousand, or impose a penalty of less than RMB250 thousand if there is no illegal business income or the illegal business income is less than RMB50 thousand. If the infringer commits the trademark infringement for more than twice in 5 years or there is any other severe situation, a heavier punishment shall be given. If the seller does not know the goods he sells infringe the exclusive right to use a registered trademark and proves that the goods are obtained by him legally, and discloses the goods supplier, the industrial and commercial administrative department shall order him to stop selling the relevant goods.

In case of any dispute in connection with the compensation for the infringement on the exclusive right to use a registered trademark, the relevant parties may ask for mediation by the industrial and commercial administrative department or file a lawsuit in the people's court according to the Civil Procedure Law of the People's Republic of China (《中華人民共和國民事訴訟法》). If the relevant parties fail to reach agreement after the mediation by the industrial and commercial administrative department or the mediation agreement is not performed, the relevant parties may file a lawsuit in the people's court according to the Civil Procedure Law of the People's Republic of China (《中華人民共和國民事訴訟法》).

### ***Labor and Social Security***

According to the Labor Law of the People's Republic of China (《中華人民共和國勞動法》) taking effect on January 1, 1995 and revised on August 27, 2009 and the Labor Contract Law of the People's Republic of China (《中華人民共和國勞動合同法》) taking effect on January 1, 2008 and revised on December 28, 2012, a labor contract shall be signed when the employer establishes labor relationship with the worker. The labor contracts shall be signed in written. When agreement is reached after negotiation, labor contracts, including fixed term labor contract, open term labor contract or labor contract based on the completion of work, shall be signed, and the salary shall be no less than the local minimum wage standard. The employer and the worker shall each fully perform its/his obligations in accordance with the labor contract.



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## REGULATORY OVERVIEW

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According to Social Insurance Law of the People's Republic of China (《中華人民共和國社會保險法》) issued by the Standing Committee of the National People's Congress on October 28, 2010 and implemented on July 1, 2011, the employers shall sign labor contracts with the employees and maintain the social insurance of the employees according to law, including basic pension insurance, basic medical insurance, work-related injury insurance, unemployment insurance and birth insurance. According to Provisional Regulations on Collection and Payment of Social Insurance Premiums (《社會保險費徵繳暫行條例》), Regulations on Work-related Injury Insurance (《工傷保險條例》), Regulations on Unemployment Insurance (《失業保險條例》) and Provisional Measures on Birth Insurance of Employees (《企業職工生育保險試行辦法》), enterprises must provide employees with social insurance, including basic pension insurance, unemployment insurance, birth insurance, work-related injury insurance and basic medical insurance. The enterprises shall go through the social insurance registration procedures at the local social insurance agencies and pay and withhold the relevant social insurance premiums for or on behalf of the employees. Social Insurance Law of the People's Republic of China (《中華人民共和國社會保險法》) issued by covers the basic pension insurance, unemployment insurance, birth insurance, work-related injury insurance and basic medical insurance and sets out in detail the obligations and liabilities of the employers according to the relevant social insurance laws and regulations.

According to Regulations on Management of Housing Provident Fund (《住房公積金管理條例》) issued by the State Council on April 3, 1999 and revised and implemented on March 24, 2002, the enterprises shall fully pay the housing provident fund contribution for the employees on time, with the contribution ratio no less than 5% of the average monthly salary of the relevant employee in the previous year. The housing provident fund contribution paid by the employees and the employers shall be owned by the employees.

### *Foreign Exchange*

The Regulations on Foreign Exchange Control of the PRC (《中華人民共和國外匯管理條例》) issued by the State Council on January 29, 1996 and implemented on April 1, 1996, which was revised on January 14, 1997 and August 5, 2008 respectively, is the key foreign exchange control regulation in force, applicable to the foreign exchange income and payment and foreign exchange operation activities of the domestic institutions and domestic individuals in China and the foreign exchange payment and collection and foreign exchange operation activities of the overseas institutions and overseas individuals in China. According to the Regulations on Foreign Exchange Control of the People's Republic of China (《中華人民共和國外匯管理條例》), the domestic institutions and domestic individuals are permitted to retain the foreign exchange. They are no longer subject to forced sale or settlement of foreign exchange, and their foreign exchange income may be repatriated to China or deposited overseas. For the current account foreign exchange income of the domestic enterprise, the enterprise may retain or sell to the financial institution engaged in foreign exchange settlement and sale business at its discretion according to the needs. For the current account foreign exchange payment of the domestic enterprise, the enterprise may pay with its own foreign exchange if it has valid documents or purchase foreign exchange from the financial institution engaged in foreign exchange settlement and sale business to make payment according to the

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## REGULATORY OVERVIEW

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needs. If the overseas institutions or overseas individuals make direct investment or engage in the issuance of securities or derivatives in China, or the domestic institutions or domestic individuals make direct investment overseas or engage in overseas issuance of securities or derivatives, they shall go through the foreign exchange review, approval and registration procedure. If the domestic enterprises borrow foreign capitals or provide external guarantee, they shall go through the foreign debt registration or external guarantee registration procedures. The retention of the capital account foreign exchange income or the sale to the financial institution engaged in foreign exchange settlement and sale business shall be approved by the foreign exchange administration authority (except for those exempted from approval according to the national regulations). The capital account foreign exchange and settlement fund shall be used for the purpose approved by the relevant authorities and foreign exchange administration departments.

The Regulations on Foreign Exchange Settlement, Sale and Payment (《結匯、售匯及付匯管理規定》) issued by PBOC on June 20, 1996 and implemented on July 1, 1996 set out requirements on the foreign exchange settlement, purchase, payment, opening of foreign exchange account and external payment by the domestic institutions, individual citizens, foreign institutions in China and foreigners in China.

According to the Decision of the State Council on Canceling and Adjusting A Batch of Items Requiring Administrative Approval (《國務院關於取消和調整一批行政審批項目等事項的決定》) issued by the State Council on October 23, 2014, State Administration of Foreign Exchange (SAFE) and its branches canceled the review and approval on the foreign exchange settlement for the repatriation of funds raised abroad under the overseas listed foreign capital stock account. In addition, according to the Notice on Relevant Issue Concerning the Administration of Foreign Exchange for Overseas Listing (《關於境外上市外匯管理有關問題的通知》) issued by the SAFE on December 26, 2014, the domestic companies shall register the overseas listed with the foreign exchange control bureau located at its registered address in 15 working days after the completion of the overseas listing and issuance. The funds raised by the domestic companies through overseas listing may be repatriated to China or deposited overseas, provided that the intended use of the fund shall be consistent with the contents of the prospectus and other public disclosure documents. According to the Notice of State Administration of Foreign Exchange on Reforming and Standardizing Capital Account Foreign Exchange Settlement Administration Policies (《國家外匯管理局關於改革和規範資本項目結匯管理政策的通知》) issued by SAFE on June 9, 2016, it has been specified clearly in the relevant policies that, for the capital account foreign exchange income subject to voluntary foreign exchange settlement (including the repatriation of the proceeds from overseas listing), the domestic institutions may conduct the foreign exchange settlement at the banks according to their operation needs. The proportion of the capital account foreign exchange income subject to voluntary foreign exchange settlement was tentatively set as 100%, provided that SAFE may adjust the aforesaid proportion according to the international payment balance status in good time.

### *Tax*

#### *Enterprise Income Tax*

According to the Enterprise Income Tax Law of the People's Republic of China (《中華人民共和國企業所得稅法》) promulgated by the People's Congress on March 16, 2007 and revised and implemented on February 24, 2017 and the Implementation Rules for the Enterprise Income Tax Law of the People's Republic of China (《中華人民共和國企業所得稅法實施條例》) promulgated by the State Council on December 6, 2007 and taking effect on January 1, 2008, all the domestic enterprises in China (including foreign-invested enterprises) shall be subject to enterprise income tax at the uniform tax rate of 25%, except for the high-tech enterprises provided by the state, which will be subject to enterprise income tax at the reduced rate of 15%.

#### *Value-added Tax*

According to Provisional Regulations on Value-added Tax of the People's Republic of China (《中華人民共和國增值稅暫行條例》) issued by the State Council on December 13, 1993 and taking effect on January 1, 1994 and revised respectively on November 5, 2008, February 6, 2016 and November 19, 2017 (“**Provisional Regulations on VAT**”), all the entities and persons engaged in sales of goods or provision of processing, repair and maintenance labor, sales of services, intangible assets or real estate or import of goods in China shall be subject to value-added tax. The taxable value shall be calculated based on the output tax and input tax. Unless otherwise specified by the Provisional Regulations on VAT (《增值稅暫行條例》), for the sales of goods, labor, tangible asset lease services or import of goods by the tax payer, the VAT rate shall be 17%; for the sales of transportation, postal, basic telecom, construction and real estate lease service, sales of real estate, transfer of land use right, sales and import of special goods listed in the Provisional Regulations on VAT by the tax payer, the VAT rate shall be 11%; for the sales of services and intangible assets by the tax payer, the VAT rate shall be 6%. Unless otherwise specified, the VAT rate for the export of goods by the tax payer shall be zero; and the VAT rate for the cross-border sales of services and intangible assets within the scope as specified in the regulations of the State Council by the domestic institutions and individuals shall be zero.

In addition, according to the Pilot Proposals for the Change from Business Tax to Value-Added Tax (《營業稅改徵增值稅試點方案》) jointly issued by the MOF and SAT, on and from January 1, 2012, the government will gradually commence the taxation reform and the change from business tax to value-added tax for the regions and industries with strong economic performance. Implementation Measures for Change from Business Tax to Value-Added Tax (《營業稅改徵增值稅試點實施辦法》) issued on March 24, 2016 and taking effect on May 1, 2016 prescribed that the pilot operation of change from business tax to value-added tax shall be started for all the regions and industries.

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## REGULATORY OVERVIEW

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According to the Circular on Simplifying and Integrating Policies Related to Value-added Tax Rate (《關於簡並增值稅稅率有關政策的通知》) jointly issued by SAT and MOF on April 28, 2017 and taking effect on July 1, 2017, the VAT rate structure will be simplified on July 1, 2017, and the VAT rate of 13% will be canceled. The tax payer selling or importing the following goods shall be subject to value-added tax at the tax rate of 11%: agricultural products (including food), tap water, heating, liquefied petrochemical gas, natural gas, edible vegetable oil, air conditioning, hot water, gas, coal product for household use, edible salt, farm machinery, feedstuff, pesticide, agricultural film, fertilizer, marsh gas, dimethyl ether, books, newspaper, magazines, audio and video products and electronic publications.

On April 4, 2018, SAT and MOF jointly issued Circular on Adjusting Value-added Tax Rate (《關於調整增值稅稅率的通知》) to further adjust the VAT rate, including the change of tax rate from 17% and 11% to 16% and 10% respectively for the taxable sales or import of goods by the tax payer.

### REGULATIONS IN THE EU AND CANADA

#### Clinical Trial Regulations in the EU

Vaccine candidates are subject to extensive regulatory requirements in relation to clinical trials. The current regulatory framework for clinical trials in EU is governed by the EU Clinical Trials Directive 2001/20/EC (the “**Clinical Trials Directive**”), which has sought to harmonize the European Union clinical trials regulatory framework, setting out common rules for the control and authorization of clinical trials in the European Union. However, the EU Member States have transposed and applied the provisions of the Directive differently and there are significant variations in the Member State regimes. A new clinical trials legislation, the Clinical Trials Regulation EU No 536/2014 (the “**Clinical Trials Regulation**”), was adopted on April 16, 2014 with the aim of ensuring a greater level of harmonisation of the rules of conducting clinical trials throughout the EU. It features:

- A streamlined application procedure for all clinical trials conducted in Europe via a single EU portal and database. All applicants must be registered before assessment;
- A single authorisation procedure for all clinical trials, to allow a faster and more thorough assessment by all concerned EU countries;
- The extension of the silent agreement principle to the authorisation process giving more legal certainty to sponsors and researchers, in particular SMEs and academics; and
- Strengthened transparency for clinical trials data.

The Clinical Trials Regulation is expected to enter into application in 2019 after the development and launch of the EU Clinical Trial Portal and Database, which is an online portal where applications will be submitted authorized and supervised through a single entry point. There will be a three-year transition period for the Clinical Trials Regulation.

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## REGULATORY OVERVIEW

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Before conducting clinical trials in EU, sponsors submit Clinical Trial Application (the “CTA”) to the regulatory agency of the Member State for review and approval. At the same time, the CTA is also submitted to an institutional review board (“IRB”) for review and approval. Alternatively, the sponsors can chose to file CTA applications in multiple countries at the same time by submitting the CTA to EMA for central review and approval.

The manufacturing of clinical trial materials are regulated by EU GMP and Annex 13 of EU Guidelines to Good Manufacturing Practice Medicinal Products for Human and Veterinary Use.

### **Clinical Trial Regulations in Belgium**

The primary regulations of clinical trials in Belgium include the law dated 7 May 2004 concerning experiments on humans, regulating experiments on humans, including clinical trials with medicines, and the currently implemented Clinical Trials Directive. The law dated 7 May 2004 has been further implemented by, among others, the Royal Decree of 30 June 2004. Federal Agency for Medicines and Health Products of Belgium (the “FAMHP”) is in charge of clinical trials. The general procedural requirements are in line with the Clinical Trials Directive and include:

- Compliance with Good Clinical Practices;
- Specific safety reporting requirements;
- Specific requirements on the manufacturing and importation of investigational medicinal products;
- Specific procedures for amendments to the protocol; and
- Procedural requirements at the end of the trial.

The FAMHP also established advice procedures according to the application procedures for clinical trials. Such advice may fall under specific categories, including pre-submission meetings, discussion for proposal responses during the procedure, explanation of specific questions asked by the FAMHP and consultation regulatory planning. To ensure compliance with such advice procedures, the sponsors may be required to provide relevant documents to FAMHP. Requests for advice that do not meet the foregoing conditions must be treated in accordance with a separate formal scientific advice procedure, provided that they fall within the legal scope of scientific and technical advice.

### Clinical Trial Regulations in Canada

In Canada, Food and Drugs Act (R.S.C., 1985) is the governing regulation related to food, drugs and related products. Clinical trial sponsors (including manufacturers and researchers) are required to submit applications to conduct a clinical trial for any drug, vaccine or medical device in Canada. Health Canada, as the department of the government of Canada with responsibility for national public health, reviews these applications and if acceptable, Health Canada issues approvals to allow the trial to be conducted in Canada. All clinical trial applications approved in Canada are documented in Health Canada's Clinical Trials Database.

In addition, an IRB is used to review and approve clinical trial plans. Clinical trials involve the administration of an investigational new drug to human subjects are under the supervision of qualified investigators in accordance with Good Clinical Practices ("GCP") requirements.

The manufacturing of investigational drugs for conducting human clinical trials is subject to cGMP requirements. Investigational drugs and active pharmaceutical ingredients imported into Canada are also subject to regulation by Health Canada relating to their labelling and distribution. Progress reports detailing the results of the clinical trials must be submitted at least annually to Health Canada and the applicable IRB, and more frequently if serious adverse events occur. Upon successful completion of phase III clinical trials, in Canada, the company sponsoring a new drug assembles all the preclinical and clinical data and other testing relating to the product's pharmacology, chemistry, manufacture, and controls, and submits it to Health Canada as part of a New Drug Submission, or NDS. The NDS is then reviewed by Health Canada for approval to market the drug.

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## HISTORY AND DEVELOPMENT

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### OVERVIEW

Our Company was established in 2009 by our Founders with the mission to develop, manufacture and commercialize high quality, innovative and affordable vaccines. Our Founders, Dr. Yu, Dr. Zhu, Dr. Qiu and Dr. Mao, self-funded the establishment of our Company with their personal savings. See “Directors, Supervisors and Senior Management” section in this Prospectus for the relevant industry experience of Dr. Yu, Dr. Zhu, Dr. Qiu and Dr. Mao.

### MILESTONES

2009	<ul style="list-style-type: none"><li>• Incorporated and registered in Tianjin, PRC</li></ul>
2011	<ul style="list-style-type: none"><li>• Licensed in global right for TB Booster from McMaster University</li></ul>
2012	<ul style="list-style-type: none"><li>• Completed commissioning of pilot facility designed to meet the GMP standard</li></ul>
2013	<ul style="list-style-type: none"><li>• Filed CTA for MCV2 and MCV4</li></ul>
2014	<ul style="list-style-type: none"><li>• Filed CTA for DTcP candidates</li><li>• Obtained CTA approval of Ad5-EBOV and initiated clinical trial</li></ul>
2015	<ul style="list-style-type: none"><li>• Pilot facility passed EMA’s QP inspection</li><li>• Obtained MCV2 and MCV4 CTA approvals</li></ul>
2016	<ul style="list-style-type: none"><li>• Completed Ad5-EBOV phase II clinical trial in Sierra Leone</li><li>• Submitted CTA of PBPV</li></ul>
2017	<ul style="list-style-type: none"><li>• Obtained NDA approval of Ad5-EBOV in China</li></ul>
2018	<ul style="list-style-type: none"><li>• Completed commissioning of commercial manufacturing facility</li><li>• CTA approved for DTcP and PBPV</li><li>• Completed phase III clinical trials for MCV2 and MCV4</li><li>• Filed CTA for PCV13i</li></ul>
2019	<ul style="list-style-type: none"><li>• Filed NDA for MCV2</li></ul>



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## HISTORY AND DEVELOPMENT

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### MAJOR SHAREHOLDING CHANGES OF OUR COMPANY

#### Shareholding Changes of Our Company

Our Company was incorporated as a foreign-invested enterprise in the PRC on January 13, 2009 with a registered capital of RMB10,000,000. Following a series of equity transfers after our establishment, as of January 17, 2011, our Founders were collectively interested in approximately 95.04% in the equity interest of our Company. Our Founders' initial capital injection in the Company was primarily made in the form of a proprietary technology developed by them, which was a manufacturing method for pneumococcal polysaccharide vaccines (肺炎多糖疫苗製備技術).

Upon its establishment, the Company was held by Ms. Xuan Liu, Dr. Zhu, Dr. Qiu, Dr. Mao and Dr. Yu as to 26%, 25%, 20%, 20% and 9%, respectively. Ms. Xuan Liu is the sister-in-law of Dr. Yu. Since none of the Founders resided in Tianjin at the time of our establishment, to facilitate the establishment process in an efficient manner, Ms. Xuan Liu was in charge of the administrative and logistics matters in relation to our establishment. Ms. Xuan Liu has no experience in biotechnology industry and has not participated in the research, development or management of the Company. According to applicable PRC laws and regulations, registered share capital must be paid in full within two years of the establishment. Therefore, Ms. Xuan Liu had to pay the share capital corresponding to the 26% interest in the Company then held by her by January 2011. Due to the lack of funds to pay the share capital in full, Ms. Xuan Liu was unable to complete the capital contribution and decided to transfer her interest in the Company to others. On November 15, 2010, Ms. Xuan Liu transferred 9.49%, 2.54% and 9.01% of the equity interest in the Company to Dr. Yu, Dr. Mao and Dr. Qiu, respectively, and transferred 2% and 1% of the equity interest in the Company to Mr. Jianfa Liu (brother-in-law of Dr. Zhu) and Mr. Jianxi Du (an Independent Third Party), respectively. Upon completion of the share transfers, Ms. Xuan Liu held 1.96% of the equity interest in the Company, and no longer played any active role in the Company.

On October 18, 2011, we entered into an investment agreement (the “**Round 1 Investment**”) with Suzhou Huyanglin Venture Capital Center (Limited Partnership) (蘇州胡楊林創業投資中心(有限合夥)) (“**Suzhou Huyanglin**”) and Shanghai Xinji Venture Capital Co., Ltd. (上海新際創業投資有限責任公司) (“**Shanghai Xinji**”), pursuant to which the share capital of our Company was increased by RMB989,000, further details of which are set out in the section headed “– Pre-IPO Investments.”

Name of investors	Share capital increased	Consideration
Suzhou Huyanglin	RMB329,670	RMB10,000,000
Shanghai Xinji	RMB659,330	RMB20,000,000
<b>Total</b>	<b>RMB989,000</b>	<b>RMB30,000,000</b>



## HISTORY AND DEVELOPMENT

On August 6, 2013, we entered into an investment agreement (the “**Round 2 Investment**”) with LAV Spring (Hong Kong) Co., Limited (“**LAV Spring**”), pursuant to which the share capital of our Company was increased by RMB1,662,086, further details of which are set out in the section headed “– Pre-IPO Investments.”

Name of investor	Share capital increased	Consideration
LAV Spring	RMB1,662,086	USD equivalent to RMB60,500,000
<b>Total</b>	RMB1,662,086	USD equivalent to RMB60,500,000

On March 10, 2014, the registered capital of our Company was increased to RMB100,000,000 by way of capitalization of capital reserve.

On August 15, 2014, Shanghai Xinji and Tianjin Heyue Guyu Equity Investment Fund Partnership (Limited Partnership) (天津和悦谷雨股权投资基金合伙企业(有限合伙)) (“**Tianjin Heyue**”) entered into a share transfer agreement, pursuant to which Shanghai Xinji transferred the share capital of RMB1,281,200 to Tianjin Heyue for a consideration of RMB6,406,000.

On the same day, we entered into an investment agreement (the “**Round 3 Investment**”) with (1) Shanghai Li’an Venture Capital Investment Center (Limited Partnership) (上海禮安創業投資中心(有限合伙)) (“**Shanghai Li’an**”), (2) Shanghai Licheng Investment Development Co., Ltd. (上海勵誠投資發展有限公司) (“**Shanghai Licheng**”) and (3) Tianjian Heyue, pursuant to which the share capital of our Company was increased by RMB6,000,000, further details of which are set out in the section headed “– Pre-IPO Investments.”

Name of investors	Share capital increased	Consideration
Shanghai Li’an	RMB4,600,000	RMB23,000,000
Shanghai Licheng	RMB1,000,000	RMB5,000,000
Tianjin Heyue	RMB400,000	RMB2,000,000
<b>Total</b>	RMB6,000,000	RMB30,000,000

On March 10, 2015, Shanghai Xinji and Shanghai Nuoqianjin Venture Capital Investment Center (Limited Partnership) (上海諾千金創業投資中心(有限合伙)) (“**Shanghai Nuoqianjin**”) entered into a share transfer agreement, pursuant to which Shanghai Xinji transferred the share capital of RMB3,928,800 to Shanghai Nuoqianjin for a consideration of RMB15,090,000.

## HISTORY AND DEVELOPMENT

On August 14, 2015, Dr. Yu and Mr. Zhongqi Shao entered into a share transfer agreement, pursuant to which Dr. Yu transferred the share capital of RMB868,600 to Mr. Zhongqi Shao, the head of pre-clinical research of our Company, at a consideration of RMB109,890, which was determined with reference to the capital contribution of Dr. Yu. On the same day, Dr. Yu, Dr. Zhu, Dr. Qiu and Dr. Mao entered into a share transfer agreement with Tianjin Qianyi Enterprise Management Partnership (Limited Partnership) (天津千益企業管理合夥企業(有限合夥)) (“**Tianjin Qianyi**”), pursuant to which Dr. Yu transferred the share capital of RMB217,200, and each of Dr. Zhu, Dr. Qiu and Dr. Mao transferred the share capital of RMB1,085,800, respectively, to Tianjin Qianyi at a total consideration of RMB439,560, which was determined with reference to the respective capital contribution of Dr. Yu, Dr. Zhu, Dr. Qiu and Dr. Mao. Tianjin Qianyi is a limited partnership incorporated in the PRC on July 31, 2015 as an employee incentive platform of our Company, details of which are set out in the section “– Major Shareholding Changes of Our Company – Employee Incentive Schemes.”

On September 25, 2015, we entered into an investment agreement (the “**Round 4-1 Investment**”) with (1) QM29 Limited (“**QM29**”), (2) Suzhou Litai Venture Capital Investment Center (Limited Partnership) (蘇州禮泰創業投資中心(有限合夥)) (“**Suzhou Litai**”), (3) Lilly Asia Ventures III Investment (Hong Kong) Co., Limited (“**Lilly Asia**,” then known as LAV Excel (Hong Kong) Co., Ltd.), (4) LAV Bio III Investment (Hong Kong) Co., Limited (“**LAV Bio**,” then known as LAV Horizon (Hong Kong) Co., Ltd.), (5) Shanghai Huiqiu Investment Co., Ltd. (上海慧秋投資有限公司) (“**Shanghai Huiqiu**”), (6) Tianjin Heyue and (7) Mr. Jianfa Liu (brother-in-law of Dr. Zhu), pursuant to which the share capital of our Company was increased by RMB20,344,932, further details of which are set out in the section headed “– Pre-IPO Investments.”

Name of investors	Share capital increased	Consideration
QM29	RMB10,970,293	USD equivalent to RMB93,144,000
Suzhou Litai	RMB1,828,382	RMB15,524,000
Lilly Asia	RMB1,828,382	USD equivalent to RMB15,524,000
LAV Bio	RMB3,656,764	USD equivalent to RMB31,048,000
Shanghai Huiqiu	RMB942,222	RMB8,000,000
Tianjin Heyue	RMB942,222	RMB8,000,000
Mr. Jianfa Liu	RMB176,667	RMB1,500,000
<b>Total</b>	RMB20,344,932	RMB172,740,000

## HISTORY AND DEVELOPMENT

On June 15, 2016, we entered into an investment agreement (the “**Round 4-2 Investment**”) with Jiaxing Huiguang Equity Investment Fund Partnership (Limited Partnership) (嘉興慧光股權投資基金合夥企業 (有限合夥)) (“**Jiaxing Huiguang**”), pursuant to which our Company increased share capital of RMB3,533,333, further details of which are set out in the section headed “– Pre-IPO Investments.”

Name of investor	Share capital increased	Consideration
Jiaxing Huiguang	RMB3,533,333	RMB30,000,000
<b>Total</b>	RMB3,533,333	RMB30,000,000

Pursuant to the promoters’ agreement dated January 25, 2017 entered into by Dr. Yu, Dr. Zhu, Dr. Qiu, Dr. Mao, LAV Spring, QM29, Shanghai Li’an, Shanghai Nuoqianjin, LAV Bio, Jiaxing Huiguang, Tianjin Qianyi, Mr. Jianfa Liu, Tianjin Heyue, Suzhou Huyanglin, Lilly Aisa, Suzhou Litai, Ms. Xuan Liu, Shanghai Licheng, Shanghai Huiqiu, Mr. Zhongqi Shao and Mr. Jianxi Du, the then shareholders of the Company, and upon approvals by the shareholders’ general meeting held on February 10, 2017, our Company was converted into a joint stock company with limited liability on February 13, 2017, with our name changed to CanSino Biologics Inc. (康希諾生物股份公司).

On April 12, 2017, we entered into an investment agreement (the “**Round 5 Investment**”) with (1) Future Industry Investment Fund (Limited Partnership) (先進製造產業投資基金 (有限合夥)) (“**Future Industry Investment Fund**”), (2) Jinshi Yikang Equity Investment (Hangzhou) Partnership (Limited Partnership) (金石翊康股權投資 (杭州) 合夥企業 (有限合夥)) (“**Jinshi Yikang**”), (3) CITIC Securities Investment Co., Ltd. (中信證券投資有限公司) (“**CITIC Investment**”), (4) QM29, (5) Suzhou Qiming Rongxin Equity Investment Partnership (Limited Partnership) (蘇州啟明融信股權投資合夥企業 (有限合夥)) (“**Qiming Rongxin**”), (6) Suzhou Industrial Park Qiming Rongchuang Equity Investment Partnership (Limited Partnership) (蘇州工業園區啟明融創股權投資合夥企業 (有限合夥)) (“**Qiming Rongchuang**”), (7) Shenzhen Dachen Chuanglian Equity Investment Fund Partnership (Limited Partnership) (深圳市達晨創聯股權投資基金合夥企業 (有限合夥)) (“**Dachen Chuanglian**”), (8) Suzhou Litai, (9) Lilly Aisa, (10) LAV Bio, (11) Shanghai Gopher Yaoren Investment Center (Limited Partnership) (上海歌斐鑰韜投資中心 (有限合夥)) (“**Gopher Yaoren**”), (12) Shanghai Gopher Hongben Investment Center (Limited Partnership) (上海歌斐鴻本投資中心 (有限合夥)) (“**Gopher Hongben**”), (13) Suzhou Zhongxin Chuangxin Investment Management Co., Ltd. (蘇州中鑫創新投資管理有限公司) (“**Zhongxin Chuangxin**”), (14) Tianjin Heyue and (15) Shanghai Huiqiu, pursuant to which we issued 26,566,009 Shares at an aggregate consideration of RMB450,000,000. The funds are irrevocably settled and received by our Company on May 4, 2017. For further details of the investment, see the section headed “– Pre-IPO Investments.”

## HISTORY AND DEVELOPMENT

Name of investors	Number of Shares	Consideration
Future Industry Investment Fund	8,855,336	RMB150,000,000
Jinshi Yikang	1,180,711	RMB20,000,000
CITIC Investment	1,180,712	RMB20,000,000
QM29	2,066,245	USD equivalent to RMB35,000,000
Qiming Rongxin	1,195,470	RMB20,250,000
Qiming Rongchuang	280,419	RMB4,750,000
Dachen Chuanglian	2,550,337	RMB43,200,000
Suzhou Litai	1,281,072	RMB21,700,000
Lilly Asia	1,281,072	USD equivalent to RMB21,700,000
LAV Bio	2,562,144	USD equivalent to RMB43,400,000
Gopher Yaoren	1,180,712	RMB20,000,000
Gopher Hongben	1,180,711	RMB20,000,000
Zhongxin Chuangxin	295,178	RMB5,000,000
Tianjin Heyue	590,356	RMB10,000,000
Shanghai Huiqiu	885,534	RMB15,000,000
<b>Total</b>	<b>26,566,009</b>	<b>RMB450,000,000</b>

On June 25, 2017, Zhongxin Chuangxin and Suzhou Industrial Park Zhongxin Hengxiang Investment Center (Limited Partnership) (蘇州工業園區中鑫恒祥投資中心(有限合夥)) (“**Zhongxin Hengxiang**”) entered into a share transfer agreement, pursuant to which Zhongxin Chuangxin transferred 295,178 Shares in our Company to Zhongxin Hengxiang.

Pursuant to a share subscription agreement entered into between our Company, Tianjin Qianrui Enterprise Management Partnership (Limited Partnership) (天津千睿企業管理合夥企業(有限合夥)) (“**Tianjin Qianrui**”) and Tianjin Qianzhi Enterprise Management Partnership (Limited Partnership) (天津千智企業管理合夥企業(有限合夥)) (“**Tianjin Qianzhi**”) on May 28, 2018, which was later approved by the annual general meeting of our Company held on May 28, 2018, our Company issued 3,299,475 Shares to Tianjin Qianrui at a consideration of RMB12,801,963, and issued 1,207,150 Shares to Tianjin Qianzhi at a consideration of RMB4,683,742. Upon completion of the share subscription by Tianjin Qianrui and Tianjin Qianzhi, the registered share capital of our Company was increased to RMB160,950,899.

### Concert Party Agreement

On February 13, 2017, upon completion of our conversion into a joint stock company, Dr. Yu, Dr. Zhu, Dr. Qiu and Dr. Mao (the “**Concert Group**”) entered into the Concert Party Agreement, pursuant to which members of the Concert Group have undertaken to vote unanimously at shareholders’ meetings of our Company. If the Concert Group is unable to reach consensus on any matter presented, the decisions will be made by a simple majority of votes by the Concert Group, and Dr. Yu holds the casting vote in case of a tie on votes within the Concert Group.

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## HISTORY AND DEVELOPMENT

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### **Employee Incentive Schemes**

In recognition of the contributions of our employees and to incentivize them to further promote our development, Tianjin Qianyi, Tianjin Qianrui and Tianjin Qianzhi were established in the PRC as our employee incentive platforms.

#### ***Tianjin Qianyi***

Tianjin Qianyi was established in the PRC as a limited partnership on July 31, 2015. Dr. Zhu is the sole general partner of Tianjin Qianyi and is responsible for the management of Tianjin Qianyi. As of the Latest Practicable Date, Tianjin Qianyi have 29 limited partners, including Ms. Zhengfang Liao (employee supervisor), Ms. Jing Wang (vice president for finance and capital markets and secretary of the Board), and 27 other employees of our Company.

#### ***Tianjin Qianrui***

Tianjin Qianrui was established in the PRC as a limited partnership on May 24, 2018. Dr. Zhu is the sole general partner of Tianjin Qianrui and is responsible for the management of Tianjin Qianrui. As of the Latest Practicable Date, Tianjin Qianrui have 41 limited partners, including Ms. Zhengfang Liao (employee supervisor), Ms. Jing Wang (vice president for finance and capital markets and secretary of the Board), Mr. Jin Cui (joint company secretary), and 38 other employees of our Company.

#### ***Tianjin Qianzhi***

Tianjin Qianzhi was established in the PRC as a limited partnership on May 24, 2018. Dr. Zhu is the sole general partner of Tianjin Qianzhi and is responsible for the management of Tianjin Qianzhi. As of the Latest Practicable Date, Tianjin Qianzhi have 2 limited partners, both of whom are employees of our Company.

### **MAJOR SUBSIDIARIES OF OUR COMPANY**

All of our business activities are conducted directly by our Company and we have not had any operating subsidiaries since our establishment.

## HISTORY AND DEVELOPMENT

### PRE-IPO INVESTMENTS

#### Summary of Details

We received five rounds of pre-IPO investments since our establishment. The following table sets forth a summary of the details of the pre-IPO investment:

	Round 1	Round 2	Round 3	Round 4-1	Round 4-2	Round 5
Amount of registered capital increased/Number of Shares subscribed	RMB989,000	RMB1,662,086	RMB6,000,000	RMB20,344,932	RMB3,533,333	26,566,009 Shares
Amount of consideration paid	RMB30,000,000	USD equivalent to RMB60,500,000	RMB30,000,000	RMB33,024,000 and USD equivalent to RMB139,716,000	RMB30,000,000	RMB450,000,000
Post-money valuation of our Company	RMB333.34 million	RMB460.50 million	RMB530.00 million	RMB1,072.74 million	RMB1,102.74 million	RMB2,650.00 million
Date of investment agreement	October 18, 2011	August 6, 2013	August 15, 2014	September 25, 2015	June 15, 2016	April 12, 2017
Date of payment of full consideration	November 11, 2011	September 17, 2013	August 29, 2014	May 26, 2016	July 14, 2016	May 4, 2017
Cost per Share paid under the pre-IPO investment <sup>1</sup>	RMB3.84	RMB4.61	RMB5.00	RMB8.49	RMB8.49	RMB16.94
Discount to the Offer Price <sup>2</sup>	approximately 79.07%	approximately 74.89%	approximately 72.74%	approximately 53.70%	approximately 53.70%	approximately 7.63%
Use of proceeds and whether they have been fully utilized	the proceeds raised have been used for our Company's production and operations, including: (i) pilot production plants construction; (ii) pre-clinical and clinical trials; (iii) product development; and (iv) working capital.	the proceeds raised have been used for our Company's production and operations, including: (i) product research and clinical trial; (ii) daily operations; (iii) land purchase and constructions for vaccine production; and (iv) working capital.	the proceeds raised have been used for our Company's production and operations, including: (i) product research and clinical trial; (ii) daily operations (iii) land purchase and constructions for vaccine production; and (iv) working capital.	The proceeds raised have been used for our Company's production and operations, including: (i) product research and clinical trial; (ii) daily operations; (iii) constructions for vaccine production; and (iv) working capital.	The proceeds raised have been used for our Company's production and operations, including: (i) product research and clinical trial; (ii) daily operations; (iii) constructions for vaccine production; and (iv) working capital.	The proceeds raised will be used for our Company's production and operations, including: (i) product research and clinical trial; (ii) daily operations and (iii) constructions for vaccine production. As of December 31, 2018, approximately 56.13% of the proceeds have been utilized.
Lock-up	subject to a lock up period of 12 months following the Listing Date pursuant to the PRC Company Law					

#### Notes:

1. As adjusted to reflect subsequent capital injections or share conversions, as applicable.
2. Calculated on the basis of the Offer Price of HK\$21.50, the mid-point of the proposed range of the Offer Price.

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## HISTORY AND DEVELOPMENT

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The Directors of the Company believe that such investments have provided support for our research and development, construction of production facilities as well as daily operations. The considerations of all the pre-IPO investments were determined based on an arm's length negotiation between the parties taking into consideration of the Company's operation team, research and development capabilities, future prospects, and strategic needs. Please refer to the section headed "– Our Shareholding and Corporate Structure" for the shareholding in our Company held by each Pre-IPO Investor immediately after completion of the Global Offering.

### Special Rights

During the pre-IPO investments, the Pre-IPO Investors were granted certain special rights, including but not limited to divestment right, pre-emptive right, veto right and anti-dilution right. Pursuant to the written consent provided by all Pre-IPO Investors, on May 31, 2018, the divestment right will be terminated upon the filing of the Listing application and certain other special rights will be terminated upon Listing in accordance with the Guidance on Pre-IPO investments (HKEx-GL43-12). However, certain arrangements entered into among the Founders and the Pre-IPO Investors will survive upon Listing and be terminated when the Company achieves (i) the full circulation of all of its Foreign Shares and Domestic Shares on overseas stock exchanges, or (ii) initial public offering on stock exchanges in the PRC (collectively, the "**Qualified Circulation**") or the relevant Pre-IPO Investor no longer hold any interest, either directly or indirectly, in the Company (whichever is earlier), including:

- *Lock-up of Shares held by the Founders:* without written consents of all Pre-IPO Investors, the Founders shall not directly or indirectly transfer any of their Shares to any third parties, or set mortgage, pledge, guarantee, option or other encumbrances on such Shares. If the Shares held by the Founders are converted into H Shares upon Listing, the Founders shall not transfer such H Shares without written consents of certain Shareholders who hold our Domestic Shares prior to the Listing, unless such transfer is made for the purpose of compensating the Pre-IPO Investors under the Compensation Arrangement as disclosed in "– Shareholders' Agreements" below.
- *Right of first refusal:* the Pre-IPO Investors are entitled to the right of first refusal to the Domestic Shares to be transferred by the Founders (with consents by the Pre-IPO Investors) on a pro rata basis, unless (i) such transfer is made for the purpose of any share incentive plans approved by the Board, or (ii) such Shares are transferred to respective related parties of the Founders. In addition, such transfer shall not cause the Founders to lose their control and operating rights over the Company.
- *Right of co-sale:* the Pre-IPO Investors are entitled to participate in the transfer of Shares by the Founders on the terms and conditions set forth in the transfer notice given by the Founders on a pro rata basis.



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## HISTORY AND DEVELOPMENT

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- *Liquidation right:* in case our Company is under liquidation and the distributions to each of the Pre-IPO Investors are not sufficient to compensate their respective investment amount, the Pre-IPO Investors will get a liquidation right over the distributions to the Founders on a pro rata basis, to the extent that the compensation to their respective investment amount is fulfilled. The Round 5 Investors shall have preferential liquidation right over the distributions to the Founders than the rest of Pre-IPO Investors.
- *Voting arrangement:* The Founders undertake to vote for the director candidate nominated by Future Industry Investment Fund if it holds no less than 4,427,668 Shares of our Company, and such number of Shares shall be adjusted when any ex-rights or ex-dividends events happen, such as equity distribution, capitalization from capital reserve, rights issue, etc.

### Shareholders' Agreements

On May 31, 2018, our Founders entered into shareholders' agreements (the "**Shareholders' Agreements**") with certain Pre-IPO Investors holding Domestic Shares (the "**Investors**"), pursuant to which:

- (1) the Investors will be entitled to transfer the Domestic Shares they hold in the Company (the "**Transfer Right**") if the Proposed Listing is completed while the Company fails to achieve the Qualified Circulation by June 30, 2023;
- (2) the Investors should issue written notice, which should include the number of Shares they would like to transfer, to the Founders if they would like to exercise the Transfer Right, and the Founders will have the right to propose transferees within 60 days after receiving such written notice (the "**Prescribed Period**") and shall ensure that the consideration of the total Shares held by each Investor is not less than their respective investment amount plus an interest of 12% or 10% (varies between the Investors) per annum between the closing date of their investment and the closing date of the share transfer (the "**Minimum Return**") and settled within 30 days after the expiration of the Prescribed Period;
- (3) if the Founders failed to propose such transferees upon expiration of the Prescribed Period, the Investors may transfer all of their Shares to any third party, and the Founders shall compensate the Investors for any difference between the consideration of such transfer and the Minimum Return (the "**Compensation Arrangement**"); and
- (4) the Investors should issue written notice to the Founders to request for the compensation and the Founders should make the payment within 30 days after receiving such notice.



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## HISTORY AND DEVELOPMENT

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### **Compliance with Interim Guidance and Guidance Letters**

Based on the documents provided by the Company relating to the pre-IPO investments, the Joint Sponsors confirm that the pre-IPO investments are in compliance with the Interim Guidance on Pre-IPO Investments (HKEx-GL29-12) and the Guidance on Pre-IPO investments (HKEx-GL43-12).

### **Information about Our Major Pre-IPO Investors**

#### ***LAV***

LAV Spring (Hong Kong) Co., Limited is a business limited liability company incorporated under the laws of Hong Kong and is wholly-owned by Lilly Asia Ventures Fund II, L.P. Lilly Asia Ventures III Investment (Hong Kong) Co., Limited (previously known as LAV Excel (Hong Kong) Co., Ltd.) and LAV Bio III Investment (Hong Kong) Co., Limited (previously known as LAV Horizon (Hong Kong) Co., Ltd.) are business limited liability companies incorporated under the laws of Hong Kong and are wholly-owned by Lilly Asia Ventures Fund III, L.P. and LAV Biosciences Fund III, L.P., respectively. Lilly Asia Ventures Fund II, L.P., Lilly Asia Ventures Fund III, L.P. and LAV Biosciences Fund III, L.P. are all Cayman exempted limited partnership funds managed by LAV Management Co., Ltd. and its affiliates (“LAV USD”).

Shanghai Li'an Venture Capital Investment Center (Limited Partnership) and Suzhou Litai Venture Capital Investment Center (Limited Partnership) are venture capital funds incorporated under the laws of PRC and are managed by Shanghai Li Yi Investment Management Partnership (Limited Partnership), a fund management company registered with the Asset Management Association of China, with the registration number being P1009417 (“LAV RMB,” together with LAV USD, “LAV”).

LAV is a leading Asia-based life science investment firm with portfolios covering all major sectors of the biomedical and healthcare industry including biopharmaceuticals, medical devices, diagnostics and healthcare services. Founded in 2008, LAV is one of the biomedical venture firms with the longest histories in China. To date, LAV manages committed capital of over US\$1.97 billion, and has invested in over 70 portfolio companies worldwide. Currently, LAV is managed by a team of professionals with substantial biomedical domain expertise, as well as extensive investing experiences in China. LAV has offices in Shanghai, Hong Kong and California, USA. Upon completion of the Global Offering (assuming the Over-allotment Option is not exercised), LAV will collectively hold 15.47% of our Shares, taking into account LAV Amber Limited's subscription for an additional 3,567,200 Shares pursuant to the cornerstone investment agreement as further described under the section headed “Cornerstone Investors” in this Prospectus.

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## HISTORY AND DEVELOPMENT

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### *Qiming*

QM29 is an investment holding company incorporated in Hong Kong and is owned by Qiming Venture Partners IV, L.P. (“**QVP IV**”) and Qiming Managing Directors Fund IV, L.P. (“**QMD IV**”). QVP IV and QMD IV are venture capital funds incorporated in the Cayman Islands, focusing on investments in companies in the media and Internet, information technology, consumer and retail, healthcare and clean technology sectors across China. Qiming is a leading China venture capital firm with over US\$3 billion assets under management, and its portfolio companies are today’s most influential brands in their respective sectors, such as Xiaomi Corporation (Stock Exchange: 01810), Meituan Dianping, Meitu, Inc. (Stock Exchange: 01357), Bilibili Inc. (Nasdaq: BILI), Hangzhou Tigermed Consulting Co., Ltd. (Shenzhen Stock Exchange: 300347), Zai Lab Limited (Nasdaq: ZLAB), Tellgen Corporation (Shenzhen Stock Exchange: 300642), Amoy Diagnostics Co., Ltd. (Shenzhen Stock Exchange: 300685). Upon completion of the Global Offering (assuming the Over-allotment Option is not exercised), QM29 will hold 5.97% of our Shares.

### *Future Industry Investment Fund*

Future Industry Investment Fund, a limited liability partnership incorporated in the PRC and managed by SDIC Fund Management Company Ltd., is focusing on investments in advanced manufacturing industry. SDIC Fund Management Company Ltd. is one of the largest professional private equity funds in China. It currently has over RMB60 billion assets under management, and its portfolio companies include Novogene Co., Ltd., Innovent Biologics, Inc., Ascentage Pharma Group International Ltd., etc. Upon completion of the Global Offering (assuming the Over-allotment Option is not exercised), Future Industry Investment Fund will hold 4.06% of our Shares.

### **Public Float**

The Shares held by Tianjin Qianyi, Tianjin Qianrui, Tianjin Qianzhi, Suzhou Huyanglin, Shanghai Nuoqianjin, Shanghai Li’an, Shanghai Licheng, Tianjin Heyue, Suzhou Litai, Shanghai Huiqiu, Mr. Jianfa Liu, Jiaxing Huiguang, Future Industry Investment Fund, Jinshi Yikang, CITIC Investment, Qiming Rongxin, Qiming Rongchuang, Dachen Chuanglian, Gopher Yaoren, Gopher Hongben, Zhongxin Hengxiang, Ms. Xuan Liu and Mr. Jianxi Du will not be considered as part of the public float as the Shares are Domestic Shares which will not be converted into H Shares and listed following the completion of the Global Offering.

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## HISTORY AND DEVELOPMENT

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The Shares held by QM29 will not be considered as part of the public float because QM29 is accustomed to take instructions from the investment committee of Qiming Corporate GP IV, Ltd., the ultimate general partner of QVP IV and QMD IV, of which Ms. Nisa Bernice Wing-Yu Leung is a member, in relation to the acquisition, disposal, voting or other disposition of the Shares held by it. Ms. Nisa Bernice Wing-Yu Leung is our Director and a core connected person of our Company as defined under the Listing Rules.

The Shares held by LAV Spring, LAV Bio and Lilly Asia will not be considered as part of the public float because they are under the management of LAV, which is entitled to control the exercise of more than 10% of the voting power at the general meeting of the Company through the equity interest held by LAV Spring, LAV Bio, Lilly Asia, Shanghai Li'an and Suzhou Litai in our Company. LAV is a substantial shareholder and a core connected person of our Company as defined under the Listing Rules.

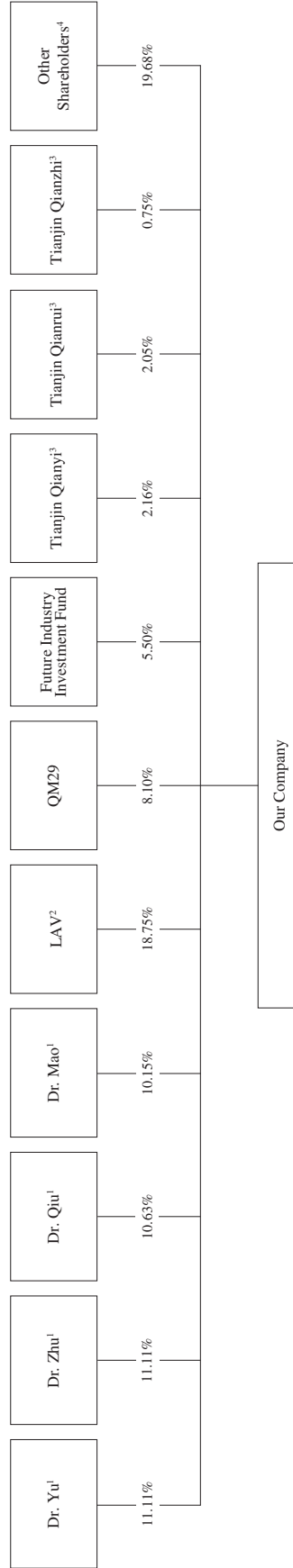
The 868,600 Shares held by Mr. Zhongqi Shao will be converted into H Shares and listed following the completion of the Global Offering. As Mr. Zhongqi Shao will not be a core connected person of our Company upon our Listing, the Shares held by him will be counted towards the public float for the purpose of Rule 8.08 of the Listing Rules after the Listing.

Immediately upon completion of the Global Offering, assuming that (i) 57,248,600 H Shares are issued and sold in the Global Offering; (ii) the Over-allotment Option is not exercised; and (iii) 218,199,499 Shares are issued and outstanding upon completion of the Global Offering, based on an Offer Price of HK\$21.00 per Share (being the low end of the indicative Offer Price range), the Company will have a market capitalization of approximately HK\$852.6 million held by public (excluding any cornerstone investors and existing Shareholders). Taking into account the Shares held by Mr. Zhongqi Shao, 54,550,000 Shares (25% of the total issued Shares of the Company) of the Company will be counted towards public float.

## OUR SHAREHOLDING AND CORPORATE STRUCTURE

### Immediately Before Completion of the Global Offering

The chart below sets out the shareholding structure of our Company immediately before completion of the Global Offering:

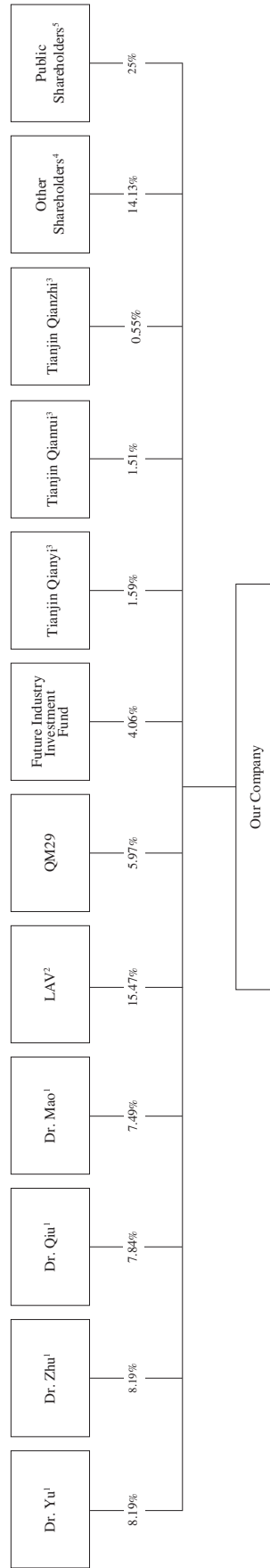


Notes:

1. Dr. Yu, Dr. Zhu, Dr. Qiu and Dr. Mao are collectively interested in approximately 42.99% of the total issued shares of the Company through the Concert Party Agreement.
2. LAV is entitled to control the exercise of 18.75% of the voting power at the general meeting of the Company through the equity interest held by LAV Spring, LAV Bio, Lilly Asia, Shanghai Li'an and Suzhou Litai in our Company.
3. Tianjin Qianyi, Tianjin Qianrui and Tianjin Qianzhi are consolidated by the Company when preparing the consolidated financial statements. For details, please see Note 1 to our consolidated financial statements included in "Appendix I – Accountant's Report" to this Prospectus. Tianjin Qianrui and Tianjin Qianzhi were established on May 24, 2018 as our employee incentive platforms. For details, please see "– Major Shareholding Changes of Our Company – Employee Incentive Schemes."
4. Immediately before the completion of the Global Offering, our Company is held as to approximately 2.44% by Shanghai Nuodian, 2.20% by Jiaxing Huiguang, 2.07% by Mr. Jianfa Liu, 2.00% by Tianjin Heyue, 1.62% by Suzhou Huyanglin, 1.58% by Dachen Chuanglian, 1.14% by Shanghai Huiqiu, 0.96% by Ms. Xuan Liu, 0.74% by Qiming Rongxin, 0.73% by Jinshi Yikang, 0.73% by CITIC Investment, 0.73% by Gopher Yaoren, 0.73% by Gopher Hongben, 0.62% by Shanghai Licheng, 0.54% by Mr. Zhongqi Shao, 0.49% by Mr. Jianxi Du, 0.18% by Zhongxin Hengxiang and 0.17% by Qiming Rongchuang, all of whom are Independent Third Parties.

## Immediately After Completion of the Global Offering

The chart below sets out the shareholding structure of our Company immediately after completion of the Global Offering (assuming the Over-allotment Option is not exercised):



### Notes:

1. Dr. Yu, Dr. Zhu, Dr. Qiu and Dr. Mao will be collectively interested in approximately 31.71% of the total issued shares of the Company through the Concert Party Agreement.
2. LAV, through the equity interest held by LAV Spring, LAV Bio, Lilly Asia, Shanghai Li'an and Suzhou Litai in our Company, taking into account LAV Amber Limited's subscription for an additional 3,567,200 Shares pursuant to the cornerstone investment agreement as further described under the section headed "Cornerstone Investors" in this Prospectus, will be entitled to control the exercise of 15.47% of the voting power at the general meeting of the Company.
3. Tianjin Qianyi, Tianjin Qianrui and Tianjin Qianzhi are consolidated by the Company when preparing the consolidated financial statements. For details, please see Note 1 to our consolidated financial statements included in "Appendix I – Accountant's Report" to this Prospectus. Tianjin Qianrui and Tianjin Qianzhi were established on May 24, 2018 as our employee incentive platforms. For details, please see "– Major Shareholding Changes of Our Company – Employee Incentive Schemes."
4. Immediately after the completion of the Global Offering, our Company will be held as to approximately 1.80% by Shanghai Nuoqianjin, 1.62% by Jiaxing Huiguang, 1.53% by Mr. Jianfa Liu, 1.47% by Tianjin Heyue, 1.20% by Suzhou Huyanglin, 1.17% by Dachen Chuanglian, 0.84% by Shanghai Huiqiu, 0.71% by Ms. Xuan Liu, 0.55% by Qiming Rongxin, 0.54% by Jinshi Yikang, 0.54% by CITIC Investment, 0.54% by Gopher Yaoren, 0.54% by Gopher Hongben, 0.46% by Shanghai Licheng, 0.36% by Mr. Jianxi Du, 0.14% by Zhongxin Hengxiang and 0.13% by Qiming Rongchuang, all of whom are Independent Third Parties. Shares held by all of the aforesaid Shareholders are Domestic Shares and will not be counted towards public float.
5. Including 868,600 Shares held by Mr. Zhongqi Shao.

### OVERVIEW

CanSino's mission is to develop, manufacture and commercialize high quality, innovative and affordable vaccines. Our mission is being fulfilled by an accomplished team of founders and senior management – world-class scientists with a record of leading the development of innovative international vaccines at global pharmaceutical companies such as Sanofi Pasteur, AstraZeneca and Wyeth (now Pfizer). Other management members are also vaccine industry veterans from leading multi-national and domestic biologics companies.

China's vaccine market is vast and underserved. According to the CIC Report, in 2017, China's vaccine market was RMB25.3 billion (US\$3.8 billion) in terms of sales revenue, or RMB19.2 (US\$2.9) per person, as compared to the U.S. vaccine market of US\$16.0 billion, or US\$49.3 per person. China's vaccine market historically has grown relatively slowly, but is expected to grow more rapidly driven by the growth of the private vaccine market – a market that is expected to dominate the overall vaccine market in China by 2022 and the market that we intend to focus on. The growth of the private vaccine market is expected to be driven by factors such as (i) increasing availability of high-quality vaccines; (ii) untapped adult market with increasing aging population; (iii) increasing awareness of the benefits of vaccination; (iv) increasing affordability of vaccines in the private market; and (v) increasing government expenditure for and policy support of preventive healthcare.

Our vaccine pipeline, which is strategically designed to address China's vast and underserved market, can be summarized into three categories: (i) globally innovative vaccines to serve China's unmet medical needs (such as Ad5-EBOV, our TB Booster candidate and our PBPV candidate); (ii) potential first-in-class vaccines in China developed to replace the current primary vaccines with higher-quality world-class vaccines (such as our DTcP vaccine candidates and MCV4 candidate); and (iii) potential best-in-class vaccines in China developed to compete with the imported products in the PRC market (such as our PCV13i candidate).

We are developing 15 vaccine candidates for 12 disease areas. In addition to our three near-commercial assets covering meningococcal diseases and Ebola virus disease, we have six vaccine candidates in clinical trial stage or CTA stage. We also have six pre-clinical vaccine candidates including one combination vaccine candidate. The comprehensiveness and robustness of this pipeline are illustrated through the following:

- There are currently approximately 50 to 60 vaccines on the global market. Of these, 16 innovative vaccines have been developed since 2000, according to the CIC Report, and our vaccine pipeline is expected to compete with nine;

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- Of the world's top ten vaccines in terms of 2017 sales revenue, our vaccine pipeline is expected to compete with six, and these six had an aggregate global sales revenue of US\$11.3 billion in 2017; and
- Of the nine vaccine categories recommended in 2017 by the United States CDC for children from birth through six years old, our vaccine pipeline covers five.

Our vaccine pipeline is developed through four key platform technologies: (i) adenovirus-based viral vector vaccine technology, which has enabled us to translate our Ebola virus disease vaccine from a concept to an approved product in only three years; (ii) conjugation technology, which has enabled us to manufacture a wide range of carrier proteins, and in turn, has allowed us to develop better multi-valent conjugate and combination vaccines that distinguish us from many of our competitors in China, such as our MCV candidates and PCV13i candidate; (iii) protein structure design and recombinant technology, with which we have developed novel antigens for pneumococcal diseases, novel recombinant strains for pertussis and a proprietary cell line to be used for viral vector production; and (iv) formulation technology, with which we have developed culture media formulations free of animal components and final product formulations free of undesired phenol and preservatives for our vaccine candidates that have filed CTA in China.

In preparation for commercial production in the near future, we have built a manufacturing facility with a gross floor area of approximately 37,000 m<sup>2</sup> which is designed, constructed and operated to meet international standards. The facility currently has an annual bulk production capacity of approximately 70 million to 80 million doses, which we believe will be fully capable of supporting our commercialization plans for our near-commercial candidates as well as supporting manufacturing of our clinical trial materials in the foreseeable future. The experience gained by our management team at leading global and domestic pharmaceutical companies will also help ensure our ability to continue to meet worldwide quality and regulatory standards.

### COMPETITIVE STRENGTHS

Although we are a relatively young company, we have built a proven track record in vaccine development and clinical trial approval. Our Ad5-EBOV, the first approved Ebola virus vaccine in China, approved for emergency use and national stockpile, was translated from concept to approved product in only three years as compared to China's industry average of 12 to 15 years, according to the CIC Report. Our Ad5-EBOV has also shown a better stability profile and does not require ultra-low temperature storage conditions as compared to competing products from multi-national companies. We believe that this achievement was supported by the following strengths of our Company, which will continue to help us compete effectively in the industry.



**Near-commercial assets with high potential**

We have two near-commercial MCV candidates. Meningococcal polysaccharide vaccines are the primary meningococcal vaccines used in China. Developed countries have replaced polysaccharide vaccines with MCV products 10 years ago. According to the CIC Report, it is expected that China's market will experience the same trend. The meningococcal vaccine market in the PRC is expected to significantly increase from RMB2.1 billion in 2017 to RMB6.9 billion in 2030, at a CAGR of 9.7%. In particular, MCV4 is expected to have a market share of 72.6% by 2030; or a CAGR of 28.1% from 2020 (the year of expected launch of our MCV4) to 2030. Our two near-commercial MCV candidates are an NDA-ready quadra-valent MCV (MCV4) and an NDA-filed bi-valent MCV (MCV2), which together cover different segments of the market:

- *MCV4 candidate.* Our MCV4 candidate is a potential first-in-class vaccine in China. Currently, meningococcal polysaccharide vaccines (MPSVs) are the primary meningococcal vaccines used in China. However, MPSV4 products have a limited age indication as they cannot induce immune responses in children younger than 2 years old, which is an important fact because the incidence of meningococcal disease is highest in infants below 12 months old. Developed countries have replaced MPSV products with MCV4 products. As of the Latest Practicable Date, there were no approved MCV4 products in China, and we aim to launch the first MCV4 vaccine in China. Compared with current primary MCV2 products approved in the PRC, our MCV4 candidate has demonstrated in phase III clinical trial, (i) a superior safety profile in the age group of 3 months, which is critical as young infants are more sensitive to safety concerns compared to older age groups, (ii) superior immunogenicity in terms of GMT level elicited by certain antigens in the age groups of 3 months and 6 to 23 months, and (iii) superior immunogenicity in terms of GMT level elicited by all antigens in the age group of 2 to 6 years old. For details, see “– Our Vaccine Pipeline – MCV Candidates – Near-commercial Vaccine Candidates – MCV4.” Due to the age indication for infants below 2 years old, a broader serogroup coverage, and superior safety profile and immunogenicity demonstrated in the phase III clinical trial for our MCV4 candidate, we believe our MCV4 candidate will gain market share relatively quickly.
- *MCV2 candidate.* Our MCV2 candidate is a potential best-in-class MCV2 vaccine in China. There are three approved MCV2 products in China's private vaccine market. Compared with the primary MCV2 products currently approved in China, our MCV2 candidate has demonstrated a superior safety profile in the age group of 3 months and superior immunogenicity in terms of GMT level elicited by the serogroup A antigen in the age groups of 6 to 23 months in our phase III clinical trial. For details, see “– Our Vaccine Pipeline – MCV Candidates – Near-commercial Vaccine Candidates – MCV2.”



### **Comprehensive and robust vaccine pipeline to address a vast and underserved market**

China's vaccine market is vast and underserved. According to the CIC Report, in 2017, China's vaccine market was RMB25.3 billion (US\$3.8 billion) in terms of sales revenue, or US\$2.9 per person, as compared to the U.S. vaccine market of US\$16.0 billion, or US\$49.3 per person. China's vaccine market historically has grown relatively slowly, but is expected to grow more rapidly driven by the continuing growth of the private vaccine market.

We are developing 15 vaccine candidates for 12 disease areas. In addition to our three near-commercial assets covering meningococcal diseases and Ebola virus disease, we have six vaccine candidates in clinical trial stage or CTA stage. We also have six pre-clinical vaccine candidates including one combination vaccine candidate.

#### ***DTcP vaccine portfolio***

We are developing a comprehensive DTcP vaccine portfolio covering all age groups. Substantially all of the DTP vaccine products currently available in China are co-purified DTaP vaccines, whereas DTcP vaccines are the dominant DTP vaccines in most developed countries. The manufacturing process of co-purified DTaP vaccines involves co-purification of pertussis antigens, which results in the quantities of each pertussis antigen varying from batch to batch. In contrast, each pertussis antigen of DTcP vaccines is purified individually and subsequently combined in a defined ratio, hence ensuring a fixed and consistent composition. Compared with DTcP vaccines, co-purified DTaP vaccines only protect infants below 2 years old and cannot be effectively used as a booster vaccine after primary vaccination to provide long-lasting immunity. The re-emergence of pertussis disease in recent years in China also demands better DTP vaccines. To address this market potential, we are developing a portfolio of these DTcP vaccine candidates:

- *DTcP Infant candidate.* We are developing a potential China best-in-class DTcP vaccine for infants. As compared with co-purified DTaP vaccines, our DTcP Infant candidate has fewer side effects and conveys better and more consistent immunogenicity as demonstrated by the higher GMT level of antibodies against pertussis elicited by our DTcP Infant candidate in pre-clinical studies and due to our advanced manufacturing process technologies. Pentaxim, which is the only vaccine in China with a DTcP component, does not have the PRN component pertussis antigen that our DTcP Infant candidate has. As compared with Pentaxim, our DTcP Infant candidate demonstrated better immunogenicity against PRN and comparable immunogenicity against PHA, PT, DT and TT in pre-clinical studies, indicating overall better protection for preventing pertussis and comparable protection against diphtheria and tetanus. For details, see “– Our Vaccine Pipeline – DTcP Vaccine Candidates – DTcP Infant Candidate – Clinical Trial Stage.”

- *DTcP Booster candidate.* We are developing a potential China first-in-class DTcP booster vaccine. There are no DTP booster vaccines for children in China that protect against pertussis after primary vaccination with co-purified DTaP vaccines. We are one of the only two companies developing a DTcP booster vaccine candidate in China.
- *Tdcp Adolescent and Adult candidate.* We are developing a Tdcp Adolescent and Adult candidate, which is a potential global best-in-class vaccine with a better formulation and immunogenicity compared to world-class vaccines such as Boostrix and Adacel. Compared with Boostrix, our Tdcp Adolescent and Adult candidate contains two additional component pertussis antigens, FIM II and FIM III, which have been shown to play an important role in bacteria attachment and therefore the addition of such antigens potentially translates to better protection, according to published studies. Compared with Adacel, we have increased the antigen amounts of DT, PT and FHA, which translates to a stronger immune response. For details, see “– Our Vaccine Pipeline – DTcP Vaccine Candidates – Tdcp Adolescent and Adult – CTA-ready.”

Furthermore, according to the CIC Report, there is a vaccine industry trend of increasing development of combination vaccines to encourage vaccination and reduce the cost of healthcare. Our DTcP vaccine is expected to become the key backbone component for our development of combination vaccines, such as DTcP+Hib+IPV.

### ***Pneumococcal vaccine portfolio***

We are developing two potential blockbuster vaccines for preventing pneumococcal diseases.

- *PBPV candidate.* PBPV is a potential globally innovative protein-based pneumococcal vaccine. PCV13 products, such as Prevnar 13, are the current world-class standard for pneumococcal vaccines. However, PCV13 products are serotype-specific, and therefore are effective against only 13 out of 90 plus serotypes of *Streptococcus pneumoniae*. Conjugation of additional serotypes is technically challenging, which limits the ability of these vaccines to cover additional serotypes. Studies have shown that there is an increase in incidence of pneumococcal diseases caused by serotypes not covered by current PCV13 products, which indicates that the protection offered by PCV13 products is becoming increasingly insufficient. Our PBPV candidate is serotype-independent and has the potential to cover substantially all pneumococcal serotypes, thereby providing greater protection in preventing pneumococcal diseases.

- *PCV13i candidate.* We are also developing a potential China best-in-class PCV13. Currently, PPV23 products are the primary pneumococcal vaccines in China, in contrast with most developed countries where PCV13 products are predominantly used. Compared with Prevnar 13 and other PCV13 candidates, our PCV13i candidate incorporates key improvements in conjugate design and manufacturing processes. As a result, our PCV13i candidate has shown better immunogenicity than Prevnar 13 in pre-clinical studies with four serotypes eliciting higher GMT levels and the other nine serotypes eliciting comparable GMT levels. For details, see “– Our Vaccine Pipeline – Pneumococcal Vaccine Candidates – PCV13i – CTA-filed.”

### ***TB Booster candidate***

TB infection remains a major public health concern in China with annual incidence of approximately 0.9 million cases, according to the CIC Report. Currently, BCG is the only available TB vaccine in the world and all newborns in the PRC are required to receive the BCG vaccination. However, the efficacy of BCG declines after 10 to 20 years from primary vaccination and no effective BCG booster vaccine is available. We are developing a globally innovative TB Booster candidate for the BCG-vaccinated population. Our TB Booster candidate would be indicated for the 4 to 18 year-old age group in China, which had a total population of 290.0 million in 2017. The phase Ib clinical trial of our TB Booster candidate was commenced in 2018. Based on the study design of the clinical trial and the enrollment status of study subjects, this clinical trial is expected to be completed in Canada by the end of 2019.

### ***Pre-clinical vaccine candidates***

We have six pre-clinical vaccine candidates, including one combination vaccine candidate and five disease-specific vaccine candidates targeting shingles, Zika, adenovirus, meningitis and polio diseases.

### **Advanced vaccine R&D platform technologies**

Leveraging the robust experience and technological know-how of our Founders, we have developed four platform technologies that cover key advanced technologies in vaccine development. These platform technologies lay the foundation for, and demonstrate our capabilities in, the research and development of vaccines. Moreover, our platform technologies complement each other and produce a synergistic effect for our research and development efforts, enabling us to develop vaccines in a cost effective manner and build a comprehensive portfolio of vaccine products. Our advanced vaccine R&D platform technologies comprise the following:

- *Adenovirus-based viral vector vaccine technology.* We have developed technology to utilize adenoviruses as viral vectors to deliver vaccine antigens to the human cell. This technology enabled us to translate our globally innovative Ebola virus vaccine from a concept to an approved product in only three years. Our adenovirus-based vector technology is also applied to our TB Booster and other vaccine candidates.

- *Conjugation technology.* Our conjugation technology and conjugation process know-how enable us to manufacture a wide range of conjugate vaccines. Conjugation enhances immunogenicity of a vaccine by linking a polysaccharide to a carrier protein. In addition to commonly used DT and TT carrier proteins, we have a number of carrier proteins including CRM197, which is produced by our proprietary high-yield bacterial strain and used in our MCV candidates. Our wide range of carrier proteins allows us to develop better multi-valent conjugate and combination vaccines, which distinguishes us from many of our competitors in China. In particular, our potential best-in-class PCV13i candidate employs a combination of different carrier proteins and we filed the CTA in December 2018.
- *Protein structure design and recombinant technology.* The function of a protein is highly dependent on the protein's structure and fold. We have developed technology to design protein structures that are optimal for use in a vaccine. For example, we have used protein structure design technology to design pneumococcal protein antigens. Unlike vaccines that were historically developed based on attenuated or inactivated versions of live viruses, recombinant technology enables us to express the DNA of an antigen that elicits an immune response in a cellular expression system and purify such antigens for vaccine production. We have developed novel recombinant strains to produce a new generation pertussis vaccine. We also developed a proprietary cell line to be used for viral vector production.
- *Formulation technology.* Vaccines are complex substances that require a deep understanding of their formulations to ensure their safety, efficacy and stability. Our culture media formulations are free of animal components, and our final product formulations are free of undesired phenol and preservatives. Such characteristics ensure consistent product quality and reduce potential risk of side effects.

### **Global-standard vaccine manufacturing capabilities and quality management system**

We believe that global-standard vaccine manufacturing capabilities and quality management system form a significant entry barrier against potential competition. Manufacturing vaccines is a complex process which may take 6 to 12 months. The quality and safety of a vaccine is highly dependent on its manufacturing processes. As a result, vaccine companies in China are required to manufacture vaccines in-house and may not outsource manufacturing to CMOs. Manufacturing vaccines is a biological process where in-depth expertise is required and process know-how is highly valuable. Accordingly, we design our manufacturing processes for our vaccine candidates when they are still in pre-clinical stage in order to ensure that they can be successfully manufactured at commercial scale. Our manufacturing team is led by our senior leaders who have hands-on experience, scientific knowledge and in-depth understanding of international manufacturing standards and requirements.

In addition, we own and operate a commercial-scale manufacturing facility with a gross floor area of approximately 37,000 m<sup>2</sup> that is designed, constructed and operated to meet international standards. The facility has an annual bulk production capacity of approximately 70 million to 80 million doses, which we believe will be fully capable of supporting our commercialization plans for our near-commercial candidates as well as supporting manufacturing of clinical trial materials in the foreseeable future. Furthermore, we have applied a comprehensive quality management from vaccine research, development and manufacturing. Our R&D facilities are designed according to global standards. Our GMP pilot plants in our research and development center have passed EMA's QP.

### **World-class scientific and management team from leading global biopharmaceutical companies**

Our Founders and executive Directors possess an average of over 20 years of experience in the biopharmaceutical industry, and all of them served in senior positions of global pharmaceutical or biotech corporations, such as Sanofi Pasteur, AstraZeneca and Wyeth (now Pfizer), that develop, manufacture and commercialize international blockbuster vaccines.

- Dr. Yu, our chairman, executive Director, chief executive officer and co-Founder, has over 25 years of experience in the biopharmaceutical industry. He led the introduction of our adenovirus viral vector production cell lines, which laid the foundation for the development of our Ad5-EBOV. Previously, he served as a scientist and the head of vaccines development and production at Sanofi Pasteur. He also served as a scientist at IBEX Technologies Inc., Canada, focusing on enzyme product development.
- Dr. Chao, our executive Director and chief operating officer, brings over 33 years of experience in global pharmaceutical companies, and has held senior management positions at AstraZeneca and Genentech, where he was responsible for global manufacturing and technical operations, and at Wyeth (now Pfizer), where he was responsible for global technical operations for vaccine production.
- Dr. Zhu, our executive Director, chief scientific officer and co-Founder, brings 15 years of biotechnology R&D experience. He was a senior scientist at Sanofi Pasteur, where he was responsible for the development of a number of innovative vaccines. He was selected for the prestigious “Thousand Talents Program” (“千人計劃”) by the PRC government in May 2011.
- Dr. Qiu, our executive Director, senior vice president and co-Founder, has over 25 years of experience in the biopharmaceutical and biotech-investment industries. He has held senior management positions in a variety of areas such as R&D, production, operations and investment in a number of domestic and international companies such as Biomira and AltaRex.

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- Dr. Mao, our senior vice president and co-Founder, brings over 25 years of experience in pharmaceutical R&D, technology transfer, quality and regulatory compliance, and has held a variety of senior positions, including senior research engineer at Albright & Wilson Americas Inc., group leader of Quality Assurance at Apotex Inc., project manager at Wyeth Pharmaceuticals Inc., and director of quality assurance at Endo Pharmaceuticals Inc.

In addition, our other management team members also bring diverse and complementary experience in R&D, manufacturing and commercialization of biologic products at domestic and international leading biologic companies. By capitalizing on such experience, our senior management team is able to effectively design our product development plans to address market demand and to drive growth of our business.

Our shareholders consist of well-recognized healthcare investors such as Lilly Asia Ventures, Qiming Venture Partners, and China's leading institutional investors including SDIC, CITIC Investment, Fortune Capital and Gopher Asset.

### BUSINESS STRATEGY

Our mission is to develop, manufacture and commercialize high quality, innovative and affordable vaccines. To fulfill that mission, we intend to implement a business strategy with the following components:

#### **Advance development and commercialization of near-commercial assets**

We plan to advance the development, approval and commercialization of our two MCV candidates through the following:

- *NDA.* In 2019, we expect to receive the NDA approval for our MCV2 candidate and to file the NDA for our MCV4 candidate.
- *Manufacturing.* We are currently conducting validation of our manufacturing facilities and processes. We expect to pass pre-approval inspection for licensure for our MCV2 and MCV4 candidates in 2019 and 2020, respectively.
- *Commercialization.* We will build up our own commercialization team to undertake pre-launch preparation, market development and sales activities for, among others, our MCV vaccines. For more details, see “– Business Strategy – Establish and strengthen our commercialization infrastructure.” In addition, we plan to establish a network of local business partners to increase awareness of the benefits of vaccination as well as promote our MCV products in lower-tier cities that we cannot cover in the short term. We intend to select local business partners with significant experience and expert knowledge in the vaccine industry.

Our Ad5-EBOV is the first approved Ebola virus vaccine in China for emergency use and national stockpile. We are actively communicating with the PRC government regarding stockpile purchases. In addition, we have submitted “Abbreviated Product Summary File for WHO Emergency Assessment” to the WHO for our Ad5-EBOV. We will also continue our discussions with authorities in other nations and other international agencies such as GAVI to explore stockpile opportunities.

### **Rapidly advance development of our pipeline of other vaccine candidates**

We are working to advance our vaccine candidates that are in clinical trial or CTA stages to the approval stage as rapidly as possible, including:

- *DTcP Infant and DTcP Booster candidates.* We have commenced phase I clinical trials for both of our DTcP Infant and DTcP Booster candidates in China and expect to conduct further clinical trials in China. Considering that we have obtained umbrella CTA approval for these two candidates and based on our experience with the clinical trials for our MCV candidates, which also received umbrella CTA approvals, we expect to complete all of the clinical trials for our DTcP Infant and DTcP Booster candidates by 2020;
- *Tdcp Adolescent and Adult candidate.* There are well-established potency standards for Tdcp vaccines in the EU. As such, we plan to file a CTA for our Tdcp Adolescent and Adult candidate in EU and we expect to commence a phase I clinical trial in the EU in 2019. We plan to file a CTA in China by the end of 2020 and expect to conduct further clinical trials for this vaccine candidate in China;
- *PCV13i candidate.* We have filed the CTA for our PCV13i candidate in December 2018. Because PCV13i leverages the proven technology of PCV13 and considering our extensive preparation and recently introduced regulations in July 2018 to shorten the CTA review process, we expect to commence clinical trials shortly after the 60-day review period. Accordingly, we expect to complete a phase I clinical trial and a phase III clinical trial in China in 2019 and 2022, respectively;
- *PBPV candidate.* The CTA for our PBPV candidate was approved in October 2018 and we expect to commence a phase I clinical trial and a phase III clinical trial of our PBPV candidate in China in 2019 and 2021, respectively; and
- *TB Booster candidate.* The phase Ib clinical trial of our TB Booster candidate was commenced in 2018 and is expected to be completed in Canada, where the collaborating party, McMaster University, is located. Based on the study design of the clinical trial and the enrollment status of study subjects, this clinical trial is expected to be completed by the end of 2019. We plan to file a CTA and commence clinical trials in China after the completion of the phase Ib clinical trial in Canada.

To that end, we intend to significantly expand our medical/clinical team. We also plan to recruit more clinical trial subjects and conduct more clinical trials in parallel. We will also continue to develop pre-clinical vaccine candidates with the aim of advancing one or more additional vaccine candidates into clinical trials each year.



### **Establish and strengthen our commercialization infrastructure**

We have begun building our commercialization infrastructure with a primary focus on China's private vaccine market. To prepare for successful launch of our products, we intend to undertake the following initiatives:

- establishing our commercialization team in up to approximately 30 economically-developed cities nationwide, and gradually penetrating into lower tier cities. We plan to expand our in-house commercialization team to reach approximately 100 members by the end of 2019 and approximately 370 to 380 members by the end of 2022 based on our current plans with respect to clinical trials and product commercialization. We expect members of our commercialization team to cover a range of our products and currently do not expect to divide our commercialization personnel by product;
- pursuing academic communications with national and local CDCs, KOLs and other healthcare professionals in vaccines and disease prevention areas;
- increasing public awareness of the benefits of vaccination for different age groups by attending non-profit and charity events and targeting parents of newborns and the elderly population as well as high-risk populations; and
- building a cold-chain logistics network by developing strong business relationships with large-scale and professional logistics providers to ensure our access to storage, warehousing and long-distance, regional and local transportation and delivery services, to ensure that our vaccine deliveries meet the temperature and other requirements of relevant laws and regulations.

In addition, leveraging our R&D platform technologies and global-standard manufacturing capabilities and quality management system, we plan to commence commercialization efforts in international markets where there is potential demand for our products in a two-pronged approach:

- *International private market.* We plan to collaborate with local partners to undertake the local registration and commercialization of our product candidates in the international private market. For example, we recently entered into a collaboration arrangement with Shenzhen Mellow Hope to develop an Indian local business partner, who would undertake the local registration and commercialization for our MCV4 candidate in India. See “– Commercialization – Sales Network – International Market;” and
- *International public market.* We plan to collaborate with international organizations, such as the WHO and GAVI, to capture stockpiling and other opportunities in the international public market.

### **Build on our strengths through global collaborations and acquisition opportunities**

We believe that we are a partner of choice for global pharmaceutical companies seeking to unlock the value of their assets in the China market. Accordingly, we intend to expand our pipeline through global collaborations and acquisitions of high-potential assets.



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To that end, we plan to actively explore collaboration and joint development opportunities. We will select collaboration partners based on their research and development capability, vaccine development experience, management and research team, business scale and reputation. For example, combination vaccines are and continue to be one of our core focuses. The lack of combination vaccines in China provide a unique opportunity for us to develop and commercialize combination vaccines through our expanding vaccine pipeline. We are exploring opportunities to acquire or in-license vaccine technologies or products from third parties for potential combination vaccine products. For example, we are actively seeking to acquire IPV technologies from third parties to be combined with our DTcP candidates into potential combination vaccines. Additionally, we plan to develop vaccines covering more disease areas by acquiring relevant technologies, such as vaccines against varicella-zoster virus.

### OUR VACCINE PIPELINE

#### Overview

We are developing 15 vaccine candidates for 12 disease areas. In addition to our three near-commercial assets covering meningococcal diseases and Ebola virus disease, we have six vaccine candidates in clinical trial stage or CTA stage. We also have six pre-clinical vaccine candidates including one combination vaccine candidate. The following table summarizes our vaccine pipeline:

VACCINE PIPELINE	EXPECTED TIMETABLE	PRE-CLINICAL	CTA-ready	CTA-filed	Phase I	Phase II	Phase III	NDA
Ad5-EBOV <sup>(1)</sup>	Approved <sup>(1)</sup>							
MCV4 <sup>*(2)</sup>	Completed phase III clinical trial and NDA-ready, and expect to file NDA in 2019							
MCV2 <sup>*(2)</sup>	Expect to receive NDA approval in 2019							
DTcP Infant	Complete all clinical trials in 2020							
DTcP Booster	Complete all clinical trials in 2020							
Tdcp Adolescent and Adult <sup>(3)</sup>	Initiate phase I in 2019							
TB Booster <sup>(4)</sup>	Complete phase Ib by the end of 2019							
PBPV	Initiate phase I in 2019							
PCV13 <sup>*(5)</sup>	Initiate phase I in 2019							
CSB016 – Shingles	Pending further studies							
CSB014 – Combination Vaccine	Pending further studies							
CSB015 – Meningitis	Pending further studies							
CSB017 – Polio	Pending further studies							
CSB012 – Adenovirus	Pending further studies							
CSB013 – ZIKA	Pending further studies							

Globally innovative  
Potential global best-in-class  
Potential first-in-class in China  
Potential best-in-class in China

\* denotes a Core Product.

- (1) Ad5-EBOV received NDA approval in China in October 2017 only for emergency use and national stockpile.
- (2) We received umbrella CTA approvals for our MCV4 and MCV2 candidates and did not conduct phase II clinical trials for these candidates based on communications with the CFDA.
- (3) We plan to initially file a CTA for our Tdcp Adolescent and Adult candidate in the EU.
- (4) The phase I clinical trials of our TB Booster candidate are being conducted in Canada.
- (5) We filed the CTA for our PCV13i candidate in December 2018. Under current PRC laws and regulations, we may proceed with clinical trials if we do not receive any negative feedback from the Center for Drug Evaluation to our CTA within 60 days of accepting our application.

### Vaccine Mechanism of Action

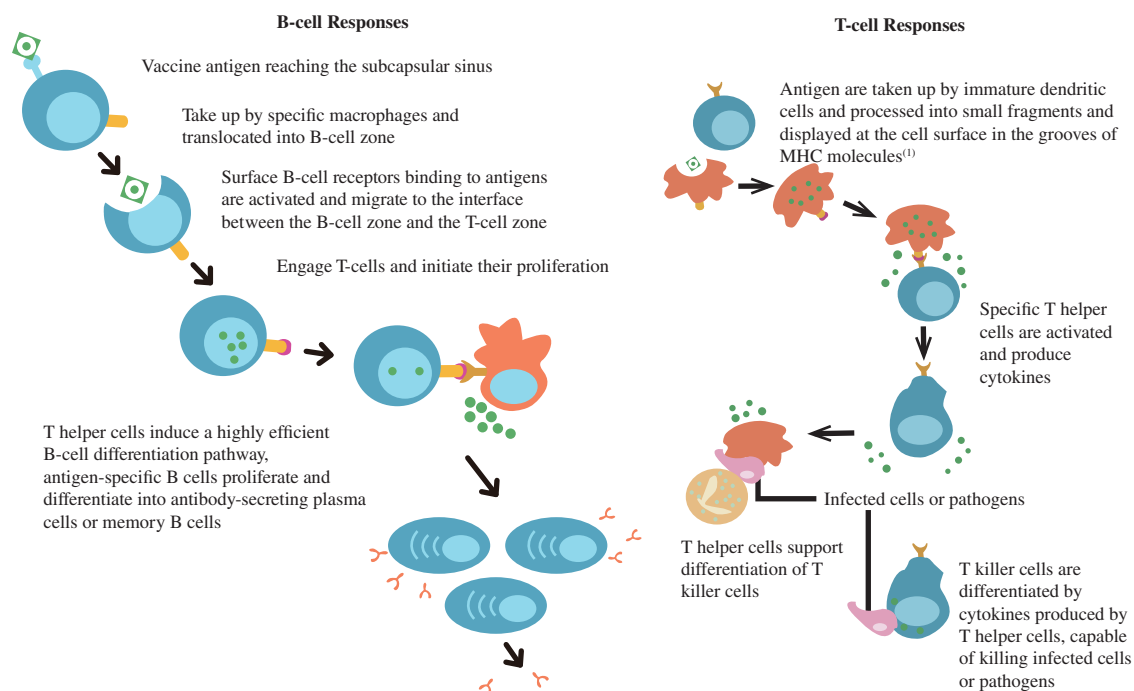
Vaccines prevent people from getting diseases by stimulating the human immune system to fight diseases. The human immune system contains two major subsystems, namely, innate immune system and adaptive immune system. When confronted with a new pathogenic organism, the immune system first seeks to eliminate the pathogen through an initial response via the innate immune system. The immune system then generates immunological memory, or adaptive immunity, through the adaptive immune system to remember and recognize the invasive pathogen to combat it in the future. A vaccine introduces a pathogen or a specific portion of a pathogen to the adaptive immune system in a controlled manner to invoke immunity against the specific pathogen that the vaccine is designed to address.

The adaptive immune system consists of two main types of cellular components:

- *T cells.* T cells are generally classified as CD8+, or T killer cells, and CD4+, or T helper cells. T cells recognize pathogen through the antigen expression and presentation process. Upon recognition, T killer cells eliminate pathogen-infected host cells. T helper cells produce compounds called cytokines that help T-cells mature and stimulate other immune cells (such as B cells) to fight against infection and to facilitate generation of immunological memory.
- *B cells.* B cells produce antibodies. B cells originate in the bone marrow, mature in secondary lymphoid tissues, and become activated in the spleen/nodes when their surface immunoglobulins bind to an antigen. B cells are classified into antibody secreting cells (plasma cells) or memory B cells. In mammals, there are five types of antibodies, namely, IgA, IgD, IgE, IgG, and IgM. These antibodies have different biological properties, and each has evolved to handle different kinds of antigens.

Specific antigen-presenting cells, or APCs, are required to activate B- and T-cells in the secondary lymph nodes to induce antigen-specific B- and T-cell responses. APCs are essentially dendritic cells that have matured. Immature dendritic cells patrol throughout the body. When exposed to pathogens in the tissues or at the site of injection, they undergo maturation and migrate towards secondary lymph nodes, where B- and T-cell responses are induced. APCs play a central role in inducing vaccine responses due to their unique capacity to provide antigen-specific stimulation signals that activate T cells.

The following diagrams illustrate the mechanisms of action of T cells and B cells, respectively.



- (1) Major histocompatibility complex (MHC) molecules are on the cell surface of all nucleated cells in human bodies. Their function is to bind to antigens derived from pathogens and display them on the cell surface for recognition by the appropriate T cells.

## MCV Candidates – Near-commercial Vaccine Candidates

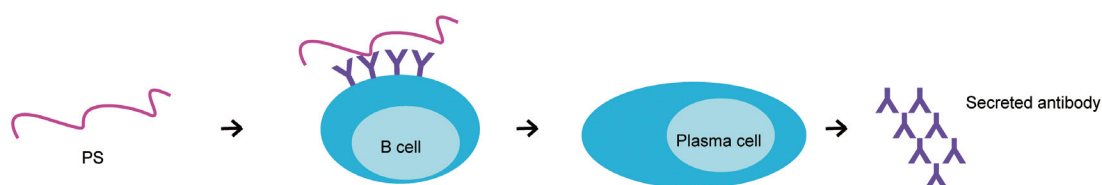
Meningococcal disease is a serious infection primarily caused by the *N. meningitides* bacteria. The incidence of meningococcal disease is highest in infants aged below 12 months. There are at least 13 serogroups of *N. meningitides* categorized based on characteristics of the polysaccharide capsule, a sugar-based component that covers the bacterial cell. The relative importance of serogroups varies among different geographic locations. Serogroups A, C, W135 and Y are the most frequent causes of meningococcal disease in China, among which, serogroup A has been the most common and caused 90% of the disease in history. In recent years, serogroups C and W135 have become more common.

We are concurrently developing two MCV candidates based on our conjugation platform technology. Our MCV4 candidate covers A, C, W135, and Y serogroups, and our MCV2 candidate covers A and C serogroups. Together, these candidates cover different segments of the market.

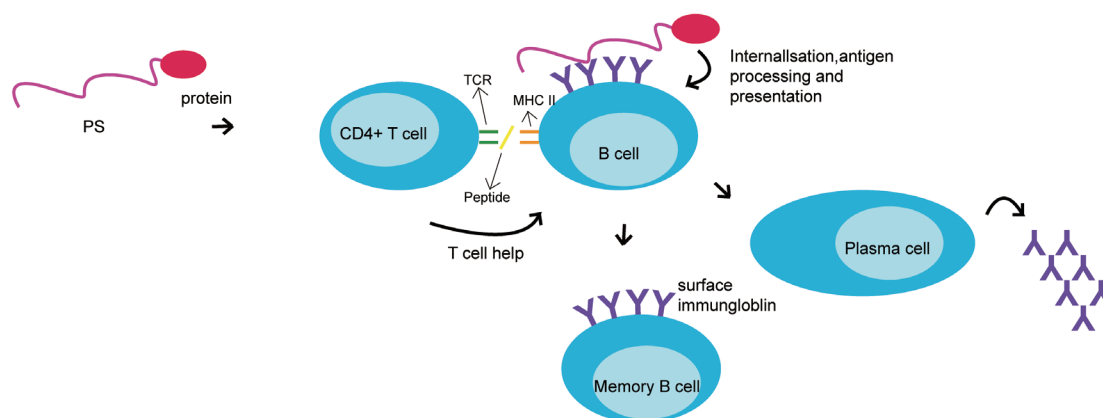
### ***Mechanism of Action***

There are two major types of meningococcal vaccines – polysaccharide and conjugate vaccines. Polysaccharide vaccines elicit antibody responses largely without the involvement of T helper cells. T helper cells facilitate the maturation of memory B cells, therefore the antibodies produced without involvement of T helper cells do not produce immunologic memory and do not possess a high affinity for antigens. As a result, polysaccharide vaccines cannot provide long-lasting protection. Also, for infants under 2 years old with less-developed immune systems, polysaccharide vaccines cannot provide effective protection. In addition, polysaccharide vaccines cannot be used as booster vaccines to reinforce immune responses over time due to the poor generation of immunologic memory. In contrast, conjugate vaccines are covalently linked to carrier proteins (for instance, CRM197, DT or TT), which can profoundly alter the immunologic properties of the polysaccharides with helper T cells. In the conjugate vaccines, the immunogenicity of polysaccharides is greatly enhanced, giving rise to high affinity antibodies and memory B cells. Conjugate vaccines used for booster vaccination can further reinforce and enhance the immune response. The following diagram illustrates the comparison of mechanism of action of conjugate vaccines and polysaccharide vaccines.

#### **Polysaccharide vaccine**



#### **Polysaccharide – Protein conjugate vaccine**



## **MCV4**

Our MCV4 candidate is a potential China first-in-class vaccine preventing meningitis. It is designed to be comparable to GSK's Menveo and Sanofi Pasteur's Menactra, which are widely used in developed countries. As of the Latest Practicable Date, neither Menveo nor Menactra has been approved in China. We are one of two domestic companies with an MCV4 candidate at phase III clinical trial or later stage and we aim to launch the first MCV4 vaccine in China.

### *Limitations of Current Vaccines*

There are no MCV4s available in China. The current quadra-valent meningococcal vaccines in China are all meningococcal polysaccharide vaccines, or MPSV4 products. MPSV4 products have a limited age indication as they cannot induce immune responses in children younger than 2 years old, which is an important fact because the incidence of meningococcal disease is highest in infants below 12 months old.

The meningococcal conjugate vaccines currently available in China are MCV2 products. MCV2 products, for example, Walvax's MCV2 and Royal's MCV2, have age indication for infants below 2 years old. However, MCV2 products only cover serogroups A and C, compared with the four serogroups covered by MCV4.

### *Advantages of Our MCV4 Candidate*

Compared with MPSV4 products, our MCV4 candidate has an age indication covering populations from 3 months to 6 years old, therefore covering infants below 12 months old where the incidence of meningococcal disease is the highest. Compared with MCV2 products with an age indication for population below 23 months old, our MCV4 candidate covers two additional serogroups, Y and W135, which translates to broader protection. In addition, the polysaccharides of our MCV4 candidate are free of phenol, a toxic substance, while most competitor meningococcal vaccines contain phenol.

The phase III clinical trial compared our MCV4 candidate with (i) Walvax's MCV2 for the age group of 3 months; (ii) Royal's MCV2 for the age group of 6 to 23 months; and (iii) Walvax's MPSV4 for the age group of 2 to 6 years. The age groups of 3 months and 6 to 23 months were the primary age groups in the phase III clinical trial of our MCV4 candidate.

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### Safety

The phase III clinical trial showed the following safety results in terms of adverse reactions within 30 days after the primary vaccination. “Adverse reaction” refers to an adverse event after vaccination that has a causal relationship with the investigational vaccine.

Age group	Arm	Number	Adverse reaction						
			Adverse reaction rate (%)			Adverse reaction grade			
			Adverse reaction rate	95% CI <sup>(1)</sup>	P <sup>(2)</sup>	Grade 1 <sup>(3)</sup>	Grade 2 <sup>(3)</sup>	Grade 3 <sup>(3)</sup>	P <sup>(2)</sup>
3 months	CanSinoBio	360	46.4	41.2-51.4	<0.001	93	68	6	<0.001
	Walvax	360	61.4	56.4-66.4		110	86	25	
6 to 23 months <sup>(4)</sup>	CanSinoBio	360	35.6	30.6-40.5	0.192	43	75	10	0.179
	Royal	360	40.3	35.2-45.3		49	80	16	
2 to 6 years	CanSinoBio	300	22.7	17.9-27.4	>0.999	35	26	7	0.857
	Walvax	300	22.7	17.9-27.4		42	23	3	

Source: Phase III clinical trial results summary

- (1) 95% CI refers to 95% confidence interval, indicating 95% of the subjects fall into the relevant range.
- (2) P>0.05 indicates no statistically significant difference in groups. P<0.05 indicates statistically significant difference in groups.
- (3) Grade 1 (mild) = Mild reaction  
Grade 2 (moderate) = Moderate reaction  
Grade 3 (severe) = Severe reaction
- (4) According to a 2(0,1) dosing schedule.

The phase III clinical trial safety results have shown that (i) for the age group of 3 months, our MCV4 candidate demonstrated a superior safety profile compared to Walvax’s MCV2 products in terms of overall adverse reaction rate and adverse reaction grades, which is critical as young infants are more sensitive to safety concerns compared to older age groups; (ii) for the age group of 6 to 23 months, our MCV4 candidate demonstrated a comparable safety profile compared to Royal’s MCV2 products in terms of overall adverse reaction rate and adverse reaction grades; and (iii) for the age group of 2 to 6 years, our MCV4 candidate demonstrated a comparable safety profile compared to Walvax’s MPSV4 products in terms of overall adverse reaction rate and adverse reaction grades.

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### Immunogenicity in terms of seroconversion rate

Age group	Serogroup	Arm	Number	Number of seroconverted subjects	Seroconversion rate (%) <sup>(1)</sup> 95% CI <sup>(2)</sup>	Difference (%) 95% CI <sup>(2)(3)</sup>
3 months	A	CanSinoBio	338	309	91.4 (88.4-94.4)	-1.5 (-5.6~2.6)
		Walvax	339	315	92.9 (90.2-95.7)	
	C	CanSinoBio	338	300	88.8 (85.4-92.1)	1.7 (-3.2~6.7)
		Walvax	339	295	87.0 (83.4-90.6)	
	Y	CanSinoBio	338	298	88.2 (84.7-91.6)	–
6-23 months <sup>(4)</sup>	W135	CanSinoBio	338	336	99.4 (98.6-100.0)	–
		A	344	333	96.8 (94.9-98.7)	9.4 (5.4~13.4)
		Royal	334	292	87.4 (83.9-91.0)	-3.6 (-7.9~0.7)
		C	344	307	89.2 (86.0-92.5)	
		Royal	334	310	92.8 (90.0-95.6)	–
		Y	344	308	89.5 (86.3-92.8)	
	W135	CanSinoBio	344	330	95.9 (93.8-98.0)	–
		A	292	280	95.9 (93.6-98.2)	13.7 (8.8~18.7)
2-6 years		Walvax	297	244	82.2 (77.8-86.5)	-1.5 (-6.4~3.4)
		C	292	260	89.0 (85.5-92.6)	
		Walvax	297	269	90.6 (87.3-93.9)	35.8 (28.9~42.7)
		Y	292	253	86.6 (82.7-90.6)	
		Walvax	297	151	50.8 (45.2-56.5)	38.6 (32.3~45.0)
		W135	292	273	93.5 (90.7-96.3)	
		Walvax	297	163	54.9 (49.2-60.5)	

Source: Phase III clinical trial results summary

- (1) Seroconversion rate is a significant indicator of immunogenicity.
- (2) 95% CI refers to 95% confidence interval, indicating 95% of the subjects fall into the relevant range.
- (3) If  $-10\% < \text{the lower limit of the } 95\% \text{ CI} \leq 10\%$ , the results show non-inferiority. If the lower limit of the 95% CI  $> 10\%$ , the results show superiority.
- (4) According to a 2(0,1) dosing schedule.

The phase III clinical trial seroconversion rate results showed that (i) for the age group of 2 to 6 years, our MCV4 candidate demonstrated superior immunogenicity in terms of the seroconversion rates elicited by serogroup Y and W135 antigens, and the seroconversion rates elicited by serogroup A and C antigens were non-inferior to that of Walvax's MPSV4; (ii) for the age group of 6 to 23 months, the seroconversion rates elicited by serogroup Y and W135 antigens achieved the designed seroconversion rate target of 85%, and the seroconversion rates elicited by serogroup A and C antigens were non-inferior to that of Royal's MCV2; and (iii) for the age group of 3 months, the seroconversion rates elicited by serogroup Y and W135 antigens achieved the designed seroconversion rate target of 85%, and the seroconversion rates elicited by serogroup A and C antigens were non-inferior to that of Walvax's MCV2.

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### Immunogenicity in terms of GMT level

	3 months				6 to 23 months <sup>(3)</sup>				2 to 6 years			
	Serogroup A GMT (P <sup>(1)</sup> =0.780)	Serogroup C GMT (P<0.001)	Serogroup Y GMT	Serogroup W135 GMT	Serogroup A GMT (P<0.001)	Serogroup C GMT (P=0.474)	Serogroup Y GMT	Serogroup W135 GMT	Serogroup A GMT (P<0.001)	Serogroup C GMT (P=0.003)	Serogroup Y GMT (P<0.001)	Serogroup W135 GMT (P<0.001)
CanSinoBio MCV4 candidate	56.10 (95% CI <sup>(2)</sup> , 47.56- 66.18)	43.99 (95% CI, 37.65 to 51.40)	90.14 (95% CI, 74.02- 109.79)	141.08 (95% CI, 127.72- 155.83)	116.50 (95% CI, 100.24- 135.39)	61.24 (95% CI, 50.89- 73.70)	62.11 (95% CI, 52.18- 73.92)	91.06 (95% CI, 79.58- 104.18)	160.00 (95% CI, 133.85- 191.25)	58.06 (95% CI, 48.16- 70.00)	82.70 (95% CI, 66.85- 102.32)	87.55 (95% CI, 72.86- 105.21)
Walvax MCV2	57.97 (95% CI, 49.42- 67.99)	27.33 (95% CI, 23.74 to 31.47)	-	-	-	-	-	-	-	-	-	-
Royal MCV2	-	-	-	-	65.34 (95% CI, 53.71- 79.50)	56.04 (95% CI, 47.94- 65.51)	-	-	-	-	-	-
Walvax MPSV4	-	-	-	-	-	-	-	-	59.41 (95% CI, 46.72- 75.54)	40.29 (95% CI, 34.47- 47.08)	9.16 (95% CI, 7.15- 11.73)	9.89 (95% CI, 7.95- 12.30)

Source: Phase III clinical trial results summary

- (1) P>0.05 indicates no statistically significant difference in groups. P<0.05 indicates statistically significant difference in groups.
- (2) 95% CI refers 95% confidence interval, indicating 95% of the subjects fall into the relevant range.
- (3) According to a 2(0,1) dosing schedule.

The phase III clinical trial showed that our MCV4 candidate demonstrated (i) superior immunogenicity in terms of GMT level elicited by the serogroup C antigen and comparable immunogenicity in terms of GMT level elicited by the serogroup A antigen in the age group of 3 months, as compared with Walvax's MCV2; (ii) superior immunogenicity in terms of GMT level elicited by the serogroup A antigen and comparable immunogenicity in terms of GMT level elicited by the serogroup C antigen in the age group of 6 to 23 months, as compared with Royal's MCV2; and (iii) superior immunogenicity in terms of GMT level elicited by all antigens in the age group of 2 to 6 years old, as compared with Walvax's MPSV4.

### Summary of Clinical Trials

#### Phase I Clinical Trial

**Study objective.** The objective of this phase I clinical trial was to evaluate the safety of our MCV4 candidate. The primary end points were (i) the adverse reactions (including overall adverse reactions, local adverse reactions and systemic adverse reactions) within 30 minutes, 7 days and 30 days after each injection of the vaccination (if more than one dose); and (ii) occurrence of liver and kidney function and blood routine abnormality after vaccination in age groups of 18 years old or above and 2 to 6 years old.



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*Study design.* The phase I clinical trial had an open design with a sample size of 96, including four age groups (3 months, 6 to 23 months, 2 to 6 years old, and 18 years or above). Details of sample size and dosing schedule are set out in the following table:

Age group	Sample size	Dosing schedule
≥18 years	24	1 <sup>(1)</sup>
2-6 years	24	1 <sup>(1)</sup>
6-23 months	24	2 (0,1) <sup>(2)</sup>
3 months	24	3 (0,1,2) <sup>(3)</sup>
<b>Total</b>	96	

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*Source: Phase I clinical trial results summary*

- (1) 1 refers 1 dose in total within the indicated age range.
- (2) 2 (0,1) refers to 2 doses in total between the age of 6 to 23 months, the second dose was provided one month after the first dose.
- (3) 3 (0,1,2) refers to 3 doses in total, the first dose was provided at the age of 3 months, the second and third doses were provided successively in the following two months after the first dose.

*Safety.* In the phase I clinical trial, a substantial majority of the adverse reactions were grade 1 (mild) and grade 2 (moderate), no serious adverse events related to the vaccine in any subjects of all age groups. All the abnormality in liver and kidney functions and blood routine tests were grade 1 (mild) and grade 2 (moderate), no grade 3 serious abnormality.

*Conclusion.* Our MCV4 candidate showed good safety and tolerability among different age groups and was ready for phase III clinical trial.

### Phase III Clinical Trial

As of the Latest Practicable Date, we have completed the phase III clinical trial of our MCV4 candidate and have received the relevant clinical study report. The phase III clinical trial was our registration trial.

*Study objective.* The objective of this phase III clinical trial is to evaluate the safety and immunogenicity of our MCV4 candidate based on comparison studies with similar marketed vaccines. More specifically, the primary endpoints of the phase III clinical trial were (i) the safety of vaccination with a focus on adverse reactions within 30 minutes, 7 days and 30 days after each injection of the primary vaccination (if more than one dose) and 6 months after completion of the primary vaccination; and (ii) immunogenicity in terms of seroconversion rate and GMT on the 30th day after the primary vaccination.

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*Study design.* The phase III clinical trial had a randomized, double-blind and positive control design with a sample size of 2,520 subjects, including three age groups (3 months, 6 to 23 months, and 2 to 6 years old). The age groups below 23 months (3 months and 6 to 23 months) were the primary age groups because the incidence of meningococcal diseases is highest in infants aged below 12 months. For this phase III clinical trial, we collaborated with CDCs. The leading collaboration CDC was Henan provincial CDC, and the on-site collaboration CDCs were Dengfeng municipal CDC and Kaifeng municipal CDC Xiangfu branch in Henan province. The leading principal investigator was Mr. Xia Shengli, the senior researcher of Henan provincial CDC. Details of the study design for each age group of the phase III clinical trial are set out in the following table:

Age group	Arm	Vaccine	Sample size	Dosing schedule	Ongoing persistence and/or booster studies <sup>(5)</sup>
3 months (90-119 days)	CanSinoBio	MCV4 candidate	360	3 (0,1,2) <sup>(1)</sup>	240 subjects of the total 360 subjects have been enrolled in a persistence and booster study Booster study: Out of the 240 subjects, 120 subjects received booster vaccination at the age of 12 months. Immediately before the booster vaccination, we collected blood samples and measured immunogenicity of these 120 subjects and then they received the booster vaccination. Immunogenicity was measured one month and six months after the booster vaccination for the 120 subjects, respectively. Persistence study of primary vaccination: Among the 240 subjects, we measured the immunogenicity of blood samples collected from 120 subjects immediately before they received the scheduled booster vaccination at the age of 12 months. In addition, we measured the immunogenicity of blood samples collected from the other 120 subjects who did not receive the booster vaccination at the age of 18 months. As a result, we measured the immunogenicity level at the age of 12 months and 18 months, respectively, after primary vaccination.
	Positive control	Walvax MCV2	360	3 (0,1,2)	Not applicable

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Age group	Arm	Vaccine	Sample size	Dosing schedule	Ongoing persistence and/or booster studies <sup>(5)</sup>
6-23 months	CanSinoBio	MCV4 candidate	360	2 (0,1) <sup>(2)</sup>	Persistence study: 120 subjects of the total 360 subjects were enrolled in a persistence study. Immunogenicity would be measured at 6 and 12 months after completion of the primary vaccination for these 120 subjects. No booster study
	Positive control	Royal MCV2	360	2 (0,1)	Not applicable
2-6 years	CanSinoBio	MCV4 candidate	300	1 <sup>(3)</sup>	Not applicable
	Positive control	Walvax MPSV4	300	1	Not applicable
<b>Total</b>			2,520 <sup>(4)</sup>		

*Source: Phase III clinical trial results summary*

- (1) 3 (0,1,2) refers to 3 doses in total, the first dose was provided at age of 3 months, the second and third doses were provided successively in the following two months after the first dose.
- (2) 2 (0,1) refers to 2 doses in total between the age of 6 to 23 months, the second dose was provided one month after the first dose.
- (3) 1 refers 1 dose in total between the age of 2 to 6 years.
- (4) We also had one arm in the age group of 6 to 23 months where we compared our MCV4 candidate with Wuhan Institute's MPV-A product, a meningococcal polysaccharide vaccine with single coverage of serogroup A and a 2 (0,3) dosing schedule (i.e. 2 doses in total, the second dose was provided three months after the first dose). We designed this arm in the age group of 6 to 23 months only for the purpose of dosing schedule studies of 2 doses, not for immunogenicity or safety comparison with the MPV-A product, and the results showed that both the 2(0,1) dosing schedule and the 2(0,3) dosing schedule achieved the target safety and immunogenicity results, and the 2(0,3) dosing schedule demonstrated superior immunogenicity compared to the 2(0,1) dosing schedule.
- (5) The persistence and booster studies were designed to study the immunogenicity persistence after primary vaccination and the necessity of booster schedule, which were not our primary clinical trial objective and not required for registration of our MCV4 candidate for NDA. We have completed trial work for such studies and the results are currently under analysis.

We designed different dosing schedules for the three age groups primarily due to the difference in immune systems of subjects in each age group. A newborn's immune system is relatively immature at birth and gradually develops with age. As a result, the 3 months age group requires the most doses (3 doses) and the number of doses decreases for the age group of 6 to 23 months (2 doses) and the age group of 2 to 6 years old (1 dose).

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*Safety.* The phase III clinical trial showed our MCV4 candidate to be safe and well-tolerated in all the age groups. A substantial majority of the adverse reactions were grade 1 (mild) and grade 2 (moderate), no serious adverse events were related to the vaccine in any subjects of all age groups. This trial showed our MCV4 candidate demonstrated (i) superior safety profile than Walvax’s MCV2 in the age group of 3 months; (ii) comparable safety profile to Royal’s MCV2 in the age group of 6 to 23 months; and (iii) comparable safety profile as Walvax’s MPSV4 in the age group of 2 to 6 years. For details, see “– Advantages of Our MCV4 Candidate – Safety.” The following table sets out the adverse reactions statistics on symptoms level within 30 days after vaccination of our MCV4 candidate and other vaccine candidates.

Symptom	3 months					6 to 23 months <sup>(5)</sup>					2 to 6 years				
	CanSinoBio MCV4 (n=360)		Walvax MCV2 (n=360)			CanSinoBio MCV4 (n=360)		Royal MCV2 (n=360)			CanSinoBio MCV4 (n=300)		Walvax MPSV4 (n=300)		
	Number (%)	95% CI	Number (%)	95% CI <sup>(1)</sup>	P <sup>(2)</sup>	Number (%)	95% CI	Number (%)	95% CI	P	Number (%)	95% CI	Number (%)	95% CI	P
Local solicited adverse reactions <sup>(3)</sup>															
Any	31 (8.6%)	5.7-11.5	60 (16.7%)	12.8-20.5	0.001	37 (10.3%)	7.2-13.4	33 (9.2%)	6.2-12.2	0.615	23 (7.7%)	4.7-10.7	10 (3.3%)	1.3-5.4	0.020
Grade 1 <sup>(4)</sup>	12 (3.3%)	–	21 (5.8%)	–	–	11 (3.1%)	–	10 (2.8%)	–	–	8 (2.7%)	–	8 (2.7%)	–	–
Grade 2	16 (4.4%)	–	24 (6.7%)	–	–	23 (6.4%)	–	21 (5.8%)	–	–	12 (4.0%)	–	2 (0.7%)	–	–
Grade 3	3 (0.8%)	–	15 (4.2%)	–	–	3 (0.8%)	–	2 (0.6%)	–	–	3 (1.0%)	–	0 (0.0%)	–	–
Pain	4 (1.1%)	0.0-2.2	17 (4.7%)	2.5-6.9	0.004	2 (0.6%)	0.0-1.3	2 (0.6%)	0.0-1.3	>0.999	3 (1.0%)	0.0-2.1	4 (1.3%)	0.0-2.6	>0.999
Grade 1	4 (1.1%)	–	14 (3.9%)	–	–	2 (0.6%)	–	2 (0.6%)	–	–	3 (1.0%)	–	4 (1.3%)	–	–
Grade 2	0 (0.0%)	–	2 (0.6%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–
Grade 3	0 (0.0%)	–	1 (0.3%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–
Redness	26 (7.2%)	4.6-9.0	49 (13.6%)	10.1-17.2	0.005	33 (9.2%)	6.2-12.2	31 (8.6%)	5.7-11.5	0.793	15 (5.0%)	2.5-7.5	6 (2.0%)	0.4-3.6	0.046
Grade 1	8 (2.2%)	–	16 (4.4%)	–	–	8 (2.2%)	–	11 (3.1%)	–	–	3 (1.0%)	–	4 (1.3%)	–	–
Grade 2	15 (4.2%)	–	20 (5.6%)	–	–	22 (6.1%)	–	19 (5.3%)	–	–	10 (3.3%)	–	2 (0.7%)	–	–
Grade 3	3 (0.8%)	–	13 (3.6%)	–	–	3 (0.8%)	–	1 (0.3%)	–	–	2 (0.7%)	–	0 (0.0%)	–	–
Swelling	6 (1.7%)	0.3-3.0	33 (9.2%)	6.2-12.2	<0.001	17 (4.7%)	2.5-6.9	11 (3.1%)	1.3-4.8	0.247	8 (2.7%)	0.8-4.5	1 (0.3%)	0.0-1.0	0.044
Grade 1	2 (0.6%)	–	10 (2.8%)	–	–	4 (1.1%)	–	4 (1.1%)	–	–	2 (0.7%)	–	1 (0.3%)	–	–
Grade 2	4 (1.1%)	–	14 (3.9%)	–	–	13 (3.6%)	–	7 (1.9%)	–	–	5 (1.7%)	–	0 (0.0%)	–	–
Grade 3	0 (0.0%)	–	9 (2.5%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–	1 (0.3%)	–	0 (0.0%)	–	–
Induration	3 (0.8%)	0.0-1.8	4 (1.1%)	0.0-2.2	>0.999	4 (1.1%)	0.0-2.2	1 (0.3%)	0.0-0.8	0.369	0 (0.0%)	–	0 (0.0%)	–	–
Grade 1	3 (0.8%)	–	2 (0.6%)	–	–	4 (1.1%)	–	0 (0.0%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–
Grade 2	0 (0.0%)	–	1 (0.3%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–
Grade 3	0 (0.0%)	–	1 (0.3%)	–	–	0 (0.0%)	–	1 (0.3%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–
Rash	1 (0.3%)	0.0-0.8	2 (0.6%)	0.0-1.3	>0.999	2 (0.6%)	0.0-1.3	0 (0.0%)	–	0.479	0 (0.0%)	–	0 (0.0%)	–	–
(injection-site)	1 (0.3%)	–	2 (0.6%)	–	–	2 (0.6%)	–	0 (0.0%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–
Grade 1	0 (0.0%)	–	0 (0.0%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–
Grade 2	0 (0.0%)	–	0 (0.0%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–
Grade 3	0 (0.0%)	–	0 (0.0%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–
Itch	1 (0.3%)	0.0-0.8	3 (0.8%)	0.0-1.8	0.616	1 (0.3%)	0.0-0.8	2 (0.6%)	0.0-1.3	>0.999	2 (0.7%)	0.0-1.6	1 (0.3%)	0.0-1.0	>0.999
Grade 1	0 (0.0%)	–	3 (0.8%)	–	–	1 (0.3%)	–	1 (0.3%)	–	–	2 (0.7%)	–	1 (0.3%)	–	–
Grade 2	1 (0.3%)	–	0 (0.0%)	–	–	0 (0.0%)	–	1 (0.3%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–
Grade 3	0 (0.0%)	–	0 (0.0%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–
Cutaneous and mucosal reactions	0 (0.0%)	–	1 (0.3%)	0.0-0.8	>0.999	0 (0.0%)	–	1 (0.3%)	0.0-0.8	>0.999	0 (0.0%)	–	0 (0.0%)	–	–
Grade 1	0 (0.0%)	–	1 (0.3%)	–	–	0 (0.0%)	–	1 (0.3%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–
Grade 2	0 (0.0%)	–	0 (0.0%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–
Grade 3	0 (0.0%)	–	0 (0.0%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–
Solicited systematic adverse reactions															
Any	152 (42.2%)	37.1-47.3	197 (54.7%)	49.6-59.9	0.001	102 (28.3%)	23.7-33.0	125 (34.7%)	29.9-39.6	0.065	46 (15.3%)	11.3-19.4	63 (21.0%)	16.4-25.6	0.072
Grade 1	93 (25.8%)	–	112 (31.1%)	–	–	41 (11.4%)	–	50 (13.9%)	–	–	28 (9.3%)	–	39 (13.0%)	–	–
Grade 2	56 (15.6%)	–	75 (20.8%)	–	–	54 (15%)	–	61 (16.9%)	–	–	15 (5.0%)	–	21 (7.0%)	–	–
Grade 3	3 (0.8%)	–	10 (2.8%)	–	–	7 (1.9%)	–	14 (3.9%)	–	–	3 (1.0%)	–	3 (1.0%)	–	–
Fever	123 (34.2%)	29.3-39.1	175 (48.6%)	43.5-53.8	<0.001	80 (22.2%)	17.9-26.5	104 (28.9%)	24.2-33.6	0.040	36 (12.0%)	8.3-15.7	54 (18.0%)	13.7-22.4	0.040
Grade 1	81 (22.5%)	–	116 (32.2%)	–	–	33 (9.2%)	–	36 (10.0%)	–	–	22 (7.3%)	–	31 (10.3%)	–	–
Grade 2	41 (11.4%)	–	51 (14.2%)	–	–	40 (11.1%)	–	56 (15.6%)	–	–	11 (3.7%)	–	20 (6.7%)	–	–
Grade 3	1 (0.3%)	–	8 (2.2%)	–	–	7 (1.9%)	–	12 (3.3%)	–	–	3 (1.0%)	–	3 (1.0%)	–	–
Fatigue	12 (3.3%)	1.5-5.2	16 (4.4%)	2.3-6.6	0.441	0 (0.0%)	–	5 (1.4%)	0.2-2.6	0.073	2 (0.7%)	0.0-1.6	2 (0.7%)	0.0-1.6	>0.999
Grade 1	10 (2.8%)	–	12 (3.3%)	–	–	0 (0.0%)	–	5 (1.4%)	–	–	2 (0.7%)	–	2 (0.7%)	–	–
Grade 2	2 (0.6%)	–	4 (1.1%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–
Grade 3	0 (0.0%)	–	0 (0.0%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–
Irritability	21 (5.8%)	3.4-8.3	42 (11.7%)	8.4-15.0	0.006	3 (0.8%)	0.0-1.8	12 (3.3%)	1.5-5.2	0.019	3 (1.0%)	0.0-2.1	2 (0.7%)	0.0-1.6	>0.999
Grade 1	16 (4.4%)	–	28 (7.8%)	–	–	2 (0.6%)	–	9 (2.5%)	–	–	2 (0.7%)	–	2 (0.7%)	–	–
Grade 2	5 (1.4%)	–	14 (3.9%)	–	–	1 (0.3%)	–	3 (0.8%)	–	–	1 (0.3%)	–	0 (0.0%)	–	–
Grade 3	0 (0.0%)	–	0 (0.0%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–
Vomiting	11 (3.1%)	1.3-4.8	5 (1.4%)	0.2-2.6	0.129	3 (0.8%)	0.0-1.8	5 (1.4%)	0.2-2.6	0.722	4 (1.3%)	0.0-2.6	2 (0.7%)	0.0-1.6	0.682
Grade 1	10 (2.8%)	–	5 (1.4%)	–	–	3 (0.8%)	–	2 (0.6%)	–	–	4 (1.3%)	–	2 (0.7%)	–	–
Grade 2	1 (0.3%)	–	0 (0.0%)	–	–	0 (0.0%)	–	1 (0.3%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–
Grade 3	0 (0.0%)	–	0 (0.0%)	–	–	0 (0.0%)	–	2 (0.6%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–

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Symptom	3 months					6 to 23 months <sup>(5)</sup>					2 to 6 years				
	CanSinoBio MCV4 (n=360)		Walvax MCV2 (n=360)			CanSinoBio MCV4 (n=360)		Royal MCV2 (n=360)			CanSinoBio MCV4 (n=300)		Walvax MPSV4 (n=300)		
	Number (%)	95% CI	Number (%)	95% CI <sup>(1)</sup>	P <sup>(2)</sup>	Number (%)	95% CI	Number (%)	95% CI	P	Number (%)	95% CI	Number (%)	95% CI	P
Diarrhea	20 (5.6%)	3.2-7.9	31 (8.6%)	5.7-11.5	0.110	15 (4.2%)	2.1-6.2	15 (4.2%)	2.1-6.2	>0.999	3 (1.0%)	0.0-2.1	5 (1.7%)	0.2-3.1	0.722
Grade 1	9 (2.5%)	–	11 (3.1%)	–	–	5 (1.4%)	–	7 (1.9%)	–	–	2 (0.7%)	–	5 (1.7%)	–	–
Grade 2	9 (2.5%)	–	18 (5%)	–	–	10 (2.8%)	–	8 (2.2%)	–	–	1 (0.3%)	–	0 (0.0%)	–	–
Grade 3	2 (0.6%)	–	2 (0.6%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–
Convulsions	4 (1.1%)	0.0-2.2	4 (1.1%)	0.0-2.2	>0.999	3 (0.8%)	0.0-1.8	1 (0.3%)	0.0-0.8	0.616	0 (0.0%)	–	0 (0.0%)	–	–
Grade 1	0 (0.0%)	–	0 (0.0%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–
Grade 2	4 (1.1%)	–	4 (1.1%)	–	–	3 (0.8%)	–	1 (0.3%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–
Grade 3	0 (0.0%)	–	0 (0.0%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–
Cough	18 (5.0%)	2.8-7.3	10 (2.8%)	1.1-4.5	0.123	7 (1.9%)	0.5-3.4	13 (3.6%)	1.7-5.5	0.174	9 (3.0%)	1.1-4.9	9 (3.0%)	1.1-4.9	>0.999
Grade 1	15 (4.2%)	–	10 (2.8%)	–	–	5 (1.4%)	–	12 (3.3%)	–	–	4 (1.3%)	–	6 (2.0%)	–	–
Grade 2	3 (0.8%)	–	0 (0.0%)	–	–	2 (0.6%)	–	1 (0.3%)	–	–	5 (1.7%)	–	3 (1.0%)	–	–
Grade 3	0 (0.0%)	–	0 (0.0%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–
Breastfeeding or eating disorders	7 (1.9%)	0.5-3.4	7 (1.9%)	0.5-3.4	>0.999	0 (0.0%)	–	6 (1.7%)	0.3-3.0	0.040	0 (0.0%)	–	0 (0.0%)	–	–
Grade 1	5 (1.4%)	–	4 (1.1%)	–	–	0 (0.0%)	–	6 (1.7%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–
Grade 2	2 (0.6%)	–	3 (0.8%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–
Grade 3	0 (0.0%)	–	0 (0.0%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–
Allergy	7 (1.9%)	0.5-3.4	2 (0.6%)	0.0-1.3	0.180	6 (1.7%)	0.3-3.0	6 (1.7%)	0.3-3.0	>0.999	1 (0.3%)	0.0-1.0	1 (0.3%)	0.0-1.0	>0.999
Grade 1	7 (1.9%)	–	1 (0.3%)	–	–	5 (1.4%)	–	4 (1.1%)	–	–	0 (0.0%)	–	1 (0.3%)	–	–
Grade 2	0 (0.0%)	–	1 (0.3%)	–	–	1 (0.3%)	–	2 (0.6%)	–	–	1 (0.3%)	–	0 (0.0%)	–	–
Grade 3	0 (0.0%)	–	0 (0.0%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–
Unsolicited adverse reactions <sup>(1)</sup>															
Any	7 (1.9%)	0.5-3.4	8 (2.2%)	0.7-3.7	0.794	12 (3.3%)	1.5-5.2	18 (5.0%)	2.8-7.3	0.263	6 (2.0%)	0.4-3.6	0 (0.0%)	–	0.040
Grade 1	6 (1.7%)	–	1 (0.3%)	–	–	4 (1.1%)	–	9 (2.5%)	–	–	4 (1.3%)	–	0 (0.0%)	–	–
Grade 2	1 (0.3%)	–	6 (1.7%)	–	–	7 (1.9%)	–	9 (2.5%)	–	–	1 (0.3%)	–	0 (0.0%)	–	–
Grade 3	0 (0.0%)	–	1 (0.3%)	–	–	1 (0.3%)	–	0 (0.0%)	–	–	1 (0.3%)	–	0 (0.0%)	–	–
Fever	0 (0.0%)	–	1 (0.3%)	0.0-0.8	>0.999	4 (1.1%)	0.0-2.2	3 (0.8%)	0.0-1.8	>0.999	0 (0.0%)	–	0 (0.0%)	–	–
Grade 1	0 (0.0%)	–	0 (0.0%)	–	–	1 (0.3%)	–	0 (0.0%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–
Grade 2	0 (0.0%)	–	1 (0.3%)	–	–	2 (0.6%)	–	3 (0.8%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–
Grade 3	0 (0.0%)	–	0 (0.0%)	–	–	1 (0.3%)	–	0 (0.0%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–
Respiratory system disorders	4 (1.1%)	0.0-2.2	4 (1.1%)	0.0-2.2	>0.999	6 (1.7%)	0.3-3.0	13 (3.6%)	1.7-5.5	0.104	3 (1.0%)	0.0-2.1	0 (0.0%)	–	0.247
Grade 1	3 (0.8%)	–	1 (0.3%)	–	–	3 (0.8%)	–	7 (1.9%)	–	–	2 (0.7%)	–	0 (0.0%)	–	–
Grade 2	1 (0.3%)	–	3 (0.8%)	–	–	3 (0.8%)	–	6 (1.7%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–
Grade 3	0 (0.0%)	–	0 (0.0%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–	1 (0.3%)	–	0 (0.0%)	–	–
Other	3 (0.8%)	–	4 (1.1%)	–	–	2 (0.6%)	–	4 (1.1%)	–	–	3 (1.0%)	–	0 (0.0%)	–	–
Grade 1	3 (0.8%)	–	1 (0.3%)	–	–	0 (0.0%)	–	4 (1.1%)	–	–	2 (0.7%)	–	0 (0.0%)	–	–
Grade 2	0 (0.0%)	–	2 (0.6%)	–	–	2 (0.6%)	–	0 (0.0%)	–	–	1 (0.3%)	–	0 (0.0%)	–	–
Grade 3	0 (0.0%)	–	1 (0.3%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–

Source: Phase III clinical trial results summary

- (1) 95% CI refers to 95% confidence interval, indicating 95% of the subjects fall into the relevant range.
- (2) P>0.05 indicates no statistically significant difference in groups. P<0.05 indicates statistically significant difference in groups.
- (3) Solicited adverse events refer to reports that are derived from organized data collection systems, and unsolicited adverse events refer those derived spontaneously outside organized data collection.
- (4) Grade 1 (mild) = Mild reaction  
Grade 2 (moderate) = Moderate reaction  
Grade 3 (severe) = Severe reaction
- (5) According to a 2(0,1) dosing schedule.

*Immunogenicity.* Our MCV4 candidate showed good immunogenicity in all age groups as it demonstrated (i) superior immunogenicity against serogroup Y and W135 antigens in terms of seroconversion rates in the age group 2 to 6 years as compared with Walvax’s MPSV4 and the targeted immunogenicity against serogroups Y and W135 by reaching the designed 85% seroconversion rates in primary age groups; (ii) non-inferior seroconversion rates elicited by serogroups A and C, as compared to Walvax’s MCV2 in the age group of 3 months, Royal’s MCV2 in the age group of 6 to 23 months and Walvax’s MPSV4 in the age group of 2 to 6 years, respectively; and (iii) (a) superior immunogenicity in terms of GMT level elicited by the serogroup C antigen in the age group of 3 months, as compared with Walvax’s MCV2, (b) superior immunogenicity in terms of GMT level elicited by the serogroup A antigen in the age group of 6 to 23 months, as compared with Royal’s MCV2, and (c) superior immunogenicity in terms of GMT level elicited by all antigens in the age group of 2 to 6 years, as compared with Walvax’s MPSV4. For details, see “– Advantages of Our MCV4 Candidate – Immunogenicity in terms of seroconversion rate” and “– Advantages of Our MCV4 Candidate – Immunogenicity in terms of GMT level.”

*Conclusion.* Our MCV4 candidate was found to be safe and well-tolerated, and showed good immunogenicity in all age groups.

#### *Competition*

As of the Latest Practicable Date, there were no approved MCV4s in China, according to the CIC Report. We expect our MCV4 candidate to compete with other MCV4 candidates being developed. The following table sets out details of the MCV4 candidates in clinical trials in China.

<u>Developer</u>	<u>Stage of development</u>	<u>Start of current stage</u>	<u>Age indication</u>
CanSinoBio	NDA-ready	December 2018	3 months to 6 years old
Minhai	Phase III	October 2013	2 months to 6 years old
Beijing Zhifei Lvzhu	Phase II	December 2018	3 months and older
Lanzhou Institute of Biological Products Co., Ltd	Phase I	June 2015	2 months to 55 years old
Walvax	Phase I	Unknown	2 months to 55 years old
Novartis	CTA-filed	January 2017	Unknown

*Source: CIC Report*

Among all of the competing candidates being developed in China, our MCV4 candidate is the potential first-in-class vaccine in China.

For the population above 2 years old, we are expected to primarily compete with MPSV4 products marketed primarily by Walvax, Hualan and Beijing Zhifei Lvzhu in China. Our MCV4 candidate is expected to be approved for the age group of 3 months to 6 years old. Current

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primary MPSV products are approved for children older than 2 and adults with high risks of being infected. Our phase III clinical trial results demonstrated that our MCV4 candidate had superior immunogenicity in the age group of 2 to 6 years old, as compared with Walvax's MPSV4.

For population below 2 years old, we expect to primarily compete with current MCV2 products in China. The following table illustrates the competitive landscape of our MCV4 candidate for the population below 2 years old.

Vaccine	Manufacturer	Comparison against our MCV4 candidate		Price (RMB/dose)
		Safety	Immunogenicity	
MCV2	Walvax	Our MCV4 candidate has a superior safety profile in the age group of 3 months	Our MCV4 candidate has superior immunogenicity in the age group of 3 months	Approximately RMB90
MCV2	Royal	Our MCV4 candidate has a comparable safety profile in the age group of 6 to 23 months	Our MCV4 candidate has superior immunogenicity in the age group of 6 to 23 months	Approximately RMB120
MCV2	Beijing Zhifei Lvzhu	N/A <sup>(1)</sup>	N/A <sup>(1)</sup>	Approximately RMB80

*Source: Phase III clinical trial results summary; CIC Report*

- (1) No comparison data is available because we generally only conduct comparison studies with similar products in our clinical trial. Beijing Zhifei Lvzhu's MCV2 contains Al(OH)<sub>3</sub>, and therefore we do not consider it to be a similar product.

### *Material Communications and Next Steps*

We obtained an umbrella CTA approval for the MCV4 candidate in December 2015. In preparation for the CTA filing with the CFDA for our MCV4 candidate, we did not have material communications with the CFDA.

We have completed the phase III clinical trial of our MCV4 candidate, and have received the clinical trial report. We plan to file the NDA for our MCV4 candidate in 2019. In addition, we intend to supplement our NDA with results of ongoing persistence and booster studies as they become available. In addition, we are conducting validation of our manufacturing facilities and processes. We expect to pass pre-approval inspection for licensure in 2020 and to launch our MCV4 candidate in the same year.

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### MCV2

Our MCV2 candidate is a potential China best-in-class bi-valent meningococcal vaccine. Compared with the primary MCV2 products currently approved in China, our phase III clinical trial showed that our MCV2 candidate demonstrated a superior safety profile in the age group of 3 months and superior immunogenicity in the age groups of 6 to 23 months.

#### *Advantages of Our MCV2 Candidate*

The phase III clinical trial compared our MCV2 candidate with (i) Walvax's MCV2 for the age group of 3 months; (ii) Royal's MCV2 for the age group of 6 to 11 months; and (iii) Royal's MCV2 for the age group of 12 to 23 months.

#### Safety

The phase III clinical trial showed the following safety results in terms of adverse reactions within 30 days after the primary vaccination. "Adverse reaction" refers to an adverse event after vaccination that has a causal relationship with the investigational vaccine.

			Adverse Reaction						
			Adverse Reaction Rate (%)			Adverse Reaction Grade			
Age group	Arm	Number	Adverse reaction rate	95% CI <sup>(1)</sup>	P <sup>(2)</sup>	Grade 1 <sup>(3)</sup>	Grade 2 <sup>(3)</sup>	Grade 3 <sup>(3)</sup>	P <sup>(2)</sup>
3 months	CanSinoBio	276	41.7	35.9-47.5	<0.001	78	34	3	<0.001
	Walvax	276	59.1	53.3-64.9		97	60	6	
6 to 11 months	CanSinoBio	276	36.6	30.9-42.3	0.859	53	42	6	0.840
	Royal	276	35.9	30.2-41.5		51	46	2	
12 to 23 months <sup>(4)</sup>	CanSinoBio	276	28.6	23.3-34.0	0.404	48	29	2	0.297
	Royal	276	31.9	26.4-37.4		45	40	3	

Source: Phase III clinical trial results summary

- (1) 95% CI refers 95% confidence interval, indicating 95% of the subjects fall into the relevant range.
- (2) P>0.05 indicates no statistically significant difference in groups. P<0.05 indicates statistically significant difference in groups.
- (3) Grade 1 (mild) = Mild reaction  
Grade 2 (moderate) = Moderate reaction  
Grade 3 (severe) = Severe reaction
- (4) According to a 2(0,1) dosing schedule.



The age groups of 3 months, 6 to 11 months and 12 to 23 months were the primary age groups in the phase III clinical trial of our MCV2 candidate. Phase III clinical trial results showed that for the age group of 3 months, the statistically significant difference in P value between our MCV2 candidate and Walvax's MCV2 indicates that our MCV2 candidate demonstrated a superior safety profile than Walvax's MCV2 in terms of total adverse reaction rate and adverse reaction grade. For the age group of 6 to 11 months, our MCV2 candidate demonstrated a comparable safety profile to Royal's MCV2 in terms of total adverse reaction rate and adverse reaction grades. For the age group of 12 to 23 months, our MCV2 candidate demonstrated a comparable safety profile to Royal's MCV2 in terms of total adverse reaction rate and adverse reaction grades.

#### Immunogenicity in terms of seroconversion rate

Age group	Serogroup	Arm	Number	Number of seroconverted subjects	Seroconversion rate (%) <sup>(1)</sup> 95% CI <sup>(2)</sup>	Difference (%) 95% CI <sup>(2) (3)</sup>
<b>3 months</b>	A	CanSinoBio	252	219	86.90 (82.74~91.07)	-0.02 (-5.89~5.85)
		Walvax	260	226	86.92 (82.82~91.02)	
	C	CanSinoBio	252	230	91.27 (87.78~94.76)	0.89 (-4.14~5.91)
		Walvax	260	235	90.38 (86.80~93.97)	
<b>6 to 11 months</b>	A	CanSinoBio	259	243	93.82 (90.89~96.75)	6.98 (1.93~12.03)
		Royal	266	231	86.84 (82.78~90.90)	
	C	CanSinoBio	259	235	90.73 (87.20~94.26)	-4.38 (-8.76~0.00)
		Royal	266	253	95.11 (92.52~97.70)	
<b>12 to 23 months<sup>(4)</sup></b>	A	CanSinoBio	269	247	91.82 (88.55~95.10)	0.98 (-3.82~5.79)
		Royal	262	238	90.84 (87.35~94.33)	
	C	CanSinoBio	269	252	93.68 (90.77~96.59)	-4.41 (-7.79~-1.03)
		Royal	262	257	98.09 (96.43~99.75)	

*Source: Phase III clinical trial results summary*

- (1) Seroconversion rate is a significant indicator of immunogenicity.
- (2) 95% CI refers 95% confidence interval, indicating 95% of the subjects fall into the relevant range.
- (3) If  $-10\% < \text{the lower limit of the } 95\% \text{ CI} \leq 10\%$ , the results show non-inferiority. If the lower limit of the 95% CI  $> 10\%$ , the results show superiority.
- (4) According to a 2(0,1) dosing schedule.

Phase III clinical trial seroconversion rate results showed that (i) the seroconversion rates elicited by serogroup A and C antigens of our MCV2 candidate in the age group of 3 months were non-inferior to that of Walvax's MCV2; (ii) the seroconversion rates elicited by serogroup A and C antigens of our MCV2 candidate in the age group of 6 to 11 months were non-inferior to that of Royal's MCV2; and (iii) the seroconversion rates elicited by serogroup A and C antigens of our MCV2 candidate in the age group of 12 to 23 months were non-inferior to that of Royal's MCV2.

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### Immunogenicity in terms of GMT level

	3 months		6 to 11 months		12 to 23 months <sup>(3)</sup>	
	Serogroup A GMT (P <sup>(1)</sup> =0.402)	Serogroup C GMT (P=0.492)	Serogroup A GMT (P<0.001)	Serogroup C GMT (P=0.244)	Serogroup A GMT (P<0.001)	Serogroup C GMT (P=0.110)
CanSinoBio MCV2 candidate	49.28 (95% CI <sup>(2)</sup> , 38.89-62.45)	63.13 (95% CI, 52.12-76.46)	84.09 (95% CI, 69.46-101.79)	99.26 (95% CI, 80.67-122.15)	92.51 (95% CI, 77.21-110.85)	120.01 (95% CI, 98.93-145.60)
Walvax MCV2	43.02 (95% CI, 34.78-53.21)	57.99 (95% CI, 50.03-67.22)	–	–	–	–
Royal MCV2	–	–	43.41 (95% CI, 35.50-53.07)	116.24 (95% CI, 98.54-137.11)	61.84 (95% CI, 51.28-74.57)	144.18 (95% CI, 128.56-161.70)

*Source: Phase III clinical trial results summary*

- (1) P>0.05 indicates no statistically significant difference in groups. P<0.05 indicates statistically significant difference in groups.
- (2) 95% CI refers 95% confidence interval, indicating 95% of the subjects fall into the relevant range.
- (3) According to a 2(0,1) dosing schedule.

Phase III clinical trial results showed that our MCV2 candidate demonstrated (i) comparable immunogenicity in terms of GMT level elicited by serogroup A and C antigens in the age group of 3 months, as compared with Walvax's MCV2; (ii) superior immunogenicity in terms of GMT level elicited by serogroup A antigen and comparable immunogenicity in terms of GMT level elicited by serogroup C antigen in the age group of 6 to 11 months, as compared to Royal MCV2; and (iii) superior immunogenicity in terms of GMT level elicited by serogroup A antigen and comparable immunogenicity in terms of GMT level elicited by serogroup C antigen in the age group of 12 to 23 months, as compared to Royal MCV2.

### *Summary of Clinical Trials*

#### Phase I Clinical Trial

*Study objective.* The objective of this phase I clinical trial was to evaluate the safety of our MCV2 candidate. The primary end points were (i) the adverse reactions (including overall adverse reactions, local adverse reactions and systemic adverse reactions) within 30 minutes, 7 days and 30 days after vaccination; and (ii) occurrence of liver and kidney function and blood routine abnormality after vaccination in age groups of 18 years old or above and 2 to 6 years old, respectively.

*Study design.* The phase I clinical trial had an open design with a sample size of 96, including four ages groups (3 months, 6 to 23 months, 2 to 6 years old, and 18 years or above). Details of sample size and dosing schedule are set out in the following table:

Age group	Sample size	Dosing schedule
≥18 years	24	1 <sup>(1)</sup>
2-6 years	24	1 <sup>(1)</sup>
6-23 months	24	2 (0,1) <sup>(2)</sup>
3 months	24	3 (0,1,2) <sup>(3)</sup>
<b>Total</b>	96	

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*Source: Phase I clinical trial results summary*

- (1) 1 refers 1 dose in total within the indicated age range.
- (2) 2 (0,1) refers to 2 doses in total between the age of 6 to 23 months, the second dose was provided one month after the first dose.
- (3) 3 (0,1,2) refers to 3 doses in total, the first dose was provided at age of 3 months, the second and third doses were provided successively in the following two months after the first dose.

*Safety.* In the phase I clinical trial, a substantial majority of the adverse reactions were grade 1 (mild) and grade 2 (moderate), no serious adverse events were related to the vaccine in any subjects of all age groups. All of the abnormality in liver and kidney functions and blood routine tests were grade 1 (mild) and grade 2 (moderate), no grade 3 serious abnormality.

*Conclusion.* Our MCV2 candidate showed good safety and tolerability among different age groups and was ready for phase III clinical trial.

### Phase III Clinical Trial

*Study objective.* The objective of this phase III clinical trial is to evaluate the safety and immunogenicity of our MCV2 candidate based comparison studies with similar vaccines on the market. More specifically, the primary endpoints of the phase III clinical trial were (i) the safety of primary vaccination with a focus on adverse reactions within 30 minutes, 7 days and 30 days after each injection of primary vaccination (if more than one dose) and 6 months after completion of primary vaccination; and (ii) immunogenicity in terms of seroconversion rate and GMT on the 30th day after the vaccination.

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*Study design.* Our phase III clinical trial was a randomized, double-blind, positive control trial with a sample size of 1,932 subjects, including three age groups (3 months, 6 to 11 months, and 12 to 23 months). All of the age groups were the primary age groups because the incidence of meningococcal diseases is highest in infants aged below 12 months. For this phase III clinical trial, we collaborated with CDCs. The leading collaboration CDC was Henan provincial CDC, and the on-site collaboration CDC was Miyang county CDC in Henan province. The leading principal investigator was Mr. Xu Bianli from Henan provincial CDC, qualified as chief physician. Details for each age group of the phase III clinical trial are set out in the following table:

Age group	Arm	Vaccine	Sample size	Dosing schedule	Ongoing persistence and/or booster studies <sup>(5)</sup>
3 months (90-119 days)	CanSinoBio	MCV2 candidate	276	3 (0,1,2) <sup>(1)</sup>	120 subjects of the total 276 subjects have been enrolled in a persistence and booster study. Booster study: We scheduled a booster vaccination for the 120 subjects at the age of 18 months. Immediately before the booster vaccination, we collected blood samples and measured immunogenicity of the 120 subjects and then they received the booster vaccination. Immunogenicity was measured one month after the booster vaccination for the 120 subjects. Persistence study of primary vaccination: We measured the immunogenicity of blood samples collected from the 120 subjects immediate before they received the booster vaccination. As a result, we measured the immunogenicity level at the age of 12 months after primary vaccination.
	Positive control	Walvax MCV2	276	3 (0,1,2)	Not applicable

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Age group	Arm	Vaccine	Sample size	Dosing schedule	Ongoing persistence and/or booster studies <sup>(5)</sup>
6-11 months	CanSinoBio	MCV2	276	2 (0,1) <sup>(2)</sup>	120 subjects of the total 276 subjects have been enrolled in a persistence and booster study with booster vaccination scheduled at age of 18 months. Before booster vaccination, we collected blood samples and measured immunogenicity of the 120 subjects. These 120 subjects received booster vaccination at the age of 18 months. Immunogenicity was measured one month after the booster vaccination.
	Positive control	Royal MCV2	276	2 (0,1)	Not applicable
12-23 months	CanSinoBio	MCV2 candidate	276	2 (0,1) <sup>(3)(4)</sup>	Not applicable
	Positive control	Royal MCV2	276	2 (0,1)	Not applicable
<b>Total</b>			1,932 <sup>(4)</sup>		

- (1) 3 (0,1,2) refers to 3 doses in total, the first dose at age of 3 months, the second and third doses successively in the following two months after the first dose.
- (2) 2 (0,1) refers to 2 doses in total between the age group of 6 to 11 months, the second dose one month after the first dose.
- (3) 2 (0,1) refers to 2 doses in total between the age group of 12 to 23 months, the second dose one month after the first dose.
- (4) We also had one arm in the age group of 12 to 23 months where our MCV2 candidate was administered with a different dosing schedule (1 dose only). This group had 276 subjects in total. We designed this arm in the age group of 12 to 23 months only for the purpose of dosing schedule studies of 2 doses and 1 dose of our MCV2 candidate, not for immunogenicity or safety comparison, and the results showed the 2(0,1) dosing schedule demonstrated superior immunogenicity compared to the 1 dose dosing schedule. As subjects in the age group of 6 to 11 months have relatively less developed immune system as compared to the subjects at or above 12 months old, unlike the MCV4 candidate which directly set up a 6 to 23 age group, we divided the 6 to 23 age group into two age groups (6 to 11 months, and 12 to 23 months), and only applied the 1 dose schedule for the 12 to 23 age group.
- (5) The persistence and booster studies were designed to study the immunogenicity persistence after primary vaccination and the necessity of booster schedule, which were not our primary trial objective and not required for registration of our MCV2 candidate for primary vaccination. We have completed trial work for such studies and the results are currently under analysis.

*Safety.* The phase III clinical trial showed that our MCV2 candidate to be safe and well-tolerated in different age groups. It demonstrated (i) superior safety profile than Walvax's MCV2 in the age group of 3 months; and (ii) comparable safety profile to Royal's MCV2 in the age groups of 6 to 11 months and 12 to 23 months, respectively. For details, see “—Advantages of Our MCV2 Candidate – Safety.” The following table sets out the adverse reactions statistics on symptoms level within 30 days after vaccination of our MCV2 candidate and the comparison vaccines, respectively.

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Symptom	3 months					6 to 11 months					12 to 23 months <sup>(5)</sup>				
	CanSinoBio MCV2 candidate (n=276)		Walvax MCV2 (n=276)		P <sup>(2)</sup>	CanSinoBio MCV2 candidate (n=276)		Royal MCV2 (n=276)		P	CanSinoBio MCV2 candidate (n=276)		Royal MCV2 (n=276)		P
	Number (%)	95% CI	Number (%)	95% CI <sup>(1)</sup>		Number (%)	95% CI	Number (%)	95% CI		Number (%)	95% CI	Number (%)	95% CI	
Local solicited adverse reactions <sup>(3)</sup>															
Any	15 (5.4%)	2.8-8.1	48 (17.4%)	12.9-21.9	<0.001	10 (3.6%)	1.4-5.8	10 (3.6%)	1.4-5.8	0.991	7 (2.5%)	0.7-4.4	5 (1.8%)	0.2-3.4	0.558
Grade 1 <sup>(4)</sup>	12 (4.3%)	-	25 (9.1%)	-	-	6 (2.2%)	-	7 (2.5%)	-	-	4 (1.4%)	-	3 (1.1%)	-	-
Grade 2	3 (1.1%)	-	20 (7.2%)	-	-	3 (1.1%)	-	3 (1.1%)	-	-	2 (0.7%)	-	2 (0.7%)	-	-
Grade 3	0 (0.0%)	-	3 (1.1%)	-	-	1 (0.4%)	-	0 (0.0%)	-	-	1 (0.4%)	-	0 (0.0%)	-	-
Pain	2 (0.7%)	0.0-1.7	12 (4.3%)	1.9-6.8	0.007	1 (0.4%)	0.0-1.1	0 (0.0%)	-	0.317	1 (0.4%)	0.0-1.1	1 (0.4%)	0.0-1.1	0.998
Grade 1	2 (0.7%)	-	4 (1.4%)	-	-	1 (0.4%)	-	0 (0.0%)	-	-	0 (0.0%)	-	1 (0.4%)	-	-
Grade 2	0 (0.0%)	-	8 (2.9%)	-	-	0 (0.0%)	-	0 (0.0%)	-	-	1 (0.4%)	-	0 (0.0%)	-	-
Grade 3	0 (0.0%)	-	0 (0.0%)	-	-	0 (0.0%)	-	0 (0.0%)	-	-	0 (0.0%)	-	0 (0.0%)	-	-
Redness	13 (4.7%)	2.2-7.2	39 (14.1%)	10.0-18.2	<0.001	8 (2.9%)	0.9-4.9	9 (3.3%)	1.2-5.4	0.815	6 (2.2%)	0.5-3.9	4 (1.4%)	0.0-2.9	0.525
Grade 1	10 (3.6%)	-	25 (9.1%)	-	-	5 (1.8%)	-	7 (2.5%)	-	-	5 (1.8%)	-	3 (1.1%)	-	-
Grade 2	3 (1.1%)	-	11 (4.0%)	-	-	2 (0.7%)	-	2 (0.7%)	-	-	1 (0.4%)	-	1 (0.4%)	-	-
Grade 3	0 (0.0%)	-	3 (1.1%)	-	-	1 (0.4%)	-	0 (0.0%)	-	-	0 (0.0%)	-	0 (0.0%)	-	-
Swelling	0 (0.0%)	-	9 (3.3%)	1.2-5.4	0.003	3 (1.1%)	0.0-2.3	2 (0.7%)	0.0-1.7	0.655	1 (0.4%)	0.0-1.1	1 (0.4%)	0.0-1.1	0.998
Grade 1	0 (0.0%)	-	1 (0.4%)	-	-	2 (0.7%)	-	1 (0.4%)	-	-	0 (0.0%)	-	1 (0.4%)	-	-
Grade 2	0 (0.0%)	-	7 (2.5%)	-	-	1 (0.4%)	-	1 (0.4%)	-	-	0 (0.0%)	-	0 (0.0%)	-	-
Grade 3	0 (0.0%)	-	1 (0.4%)	-	-	0 (0.0%)	-	0 (0.0%)	-	-	1 (0.4%)	-	0 (0.0%)	-	-
Induration	0 (0.0%)	-	0 (0.0%)	-	-	0 (0.0%)	-	0 (0.0%)	-	-	0 (0.0%)	-	1 (0.4%)	0.0-1.1	0.317
Grade 1	0 (0.0%)	-	0 (0.0%)	-	-	0 (0.0%)	-	0 (0.0%)	-	-	0 (0.0%)	-	0 (0.0%)	-	-
Grade 2	0 (0.0%)	-	0 (0.0%)	-	-	0 (0.0%)	-	0 (0.0%)	-	-	0 (0.0%)	-	1 (0.4%)	-	-
Grade 3	0 (0.0%)	-	0 (0.0%)	-	-	0 (0.0%)	-	0 (0.0%)	-	-	0 (0.0%)	-	0 (0.0%)	-	-
Rash	0 (0.0%)	-	0 (0.0%)	-	-	0 (0.0%)	-	0 (0.0%)	-	-	0 (0.0%)	-	0 (0.0%)	-	-
Grade 1	0 (0.0%)	-	0 (0.0%)	-	-	0 (0.0%)	-	0 (0.0%)	-	-	0 (0.0%)	-	0 (0.0%)	-	-
Grade 2	0 (0.0%)	-	0 (0.0%)	-	-	0 (0.0%)	-	0 (0.0%)	-	-	0 (0.0%)	-	0 (0.0%)	-	-
Grade 3	0 (0.0%)	-	0 (0.0%)	-	-	0 (0.0%)	-	0 (0.0%)	-	-	0 (0.0%)	-	0 (0.0%)	-	-
Itch	0 (0.0%)	-	0 (0.0%)	-	-	0 (0.0%)	-	0 (0.0%)	-	-	0 (0.0%)	-	0 (0.0%)	-	-
Grade 1	0 (0.0%)	-	0 (0.0%)	-	-	0 (0.0%)	-	0 (0.0%)	-	-	0 (0.0%)	-	0 (0.0%)	-	-
Grade 2	0 (0.0%)	-	0 (0.0%)	-	-	0 (0.0%)	-	0 (0.0%)	-	-	0 (0.0%)	-	0 (0.0%)	-	-
Grade 3	0 (0.0%)	-	0 (0.0%)	-	-	0 (0.0%)	-	0 (0.0%)	-	-	0 (0.0%)	-	0 (0.0%)	-	-
Cutaneous and mucosal reactions	0 (0.0%)	-	0 (0.0%)	-	-	0 (0.0%)	-	0 (0.0%)	-	-	0 (0.0%)	-	0 (0.0%)	-	-
Grade 1	0 (0.0%)	-	0 (0.0%)	-	-	0 (0.0%)	-	0 (0.0%)	-	-	0 (0.0%)	-	0 (0.0%)	-	-
Grade 2	0 (0.0%)	-	0 (0.0%)	-	-	0 (0.0%)	-	0 (0.0%)	-	-	0 (0.0%)	-	0 (0.0%)	-	-
Grade 3	0 (0.0%)	-	0 (0.0%)	-	-	0 (0.0%)	-	0 (0.0%)	-	-	0 (0.0%)	-	0 (0.0%)	-	-
Solicited systemic adverse reactions															
Any	103 (37.3%)	31.6-43.0	141 (51.1%)	45.2-57.0	0.002	96 (34.8%)	29.2-40.4	92 (33.3%)	27.8-38.9	0.836	75 (27.2%)	21.9-32.4	84 (30.4%)	25.0-35.9	0.271
Grade 1	69 (25.0%)	-	93 (33.7%)	-	-	54 (19.6%)	-	46 (16.7%)	-	-	46 (16.7%)	-	42 (15.2%)	-	-
Grade 2	31 (11.2%)	-	45 (16.3%)	-	-	38 (13.8%)	-	44 (15.9%)	-	-	29 (10.5%)	-	39 (14.1%)	-	-
Grade 3	3 (1.1%)	-	3 (1.1%)	-	-	4 (1.4%)	-	2 (0.7%)	-	-	0 (0.0%)	-	3 (1.1%)	-	-
Fever	93 (33.7%)	28.1-39.3	121 (43.8%)	38.0-49.7	0.013	88 (31.9%)	26.4-37.4	86 (31.2%)	25.7-36.6	0.978	69 (25.0%)	19.9-30.1	75 (27.2%)	21.9-32.4	0.431
Grade 1	66 (23.9%)	-	82 (29.7%)	-	-	52 (18.8%)	-	44 (15.9%)	-	-	44 (15.9%)	-	40 (14.5%)	-	-
Grade 2	25 (9.1%)	-	38 (13.8%)	-	-	32 (11.6%)	-	41 (14.9%)	-	-	25 (9.1%)	-	32 (11.6%)	-	-
Grade 3	2 (0.7%)	-	1 (0.4%)	-	-	4 (1.4%)	-	1 (0.4%)	-	-	0 (0.0%)	-	3 (1.1%)	-	-
Fatigue	3 (1.1%)	0.0-2.3	9 (3.3%)	1.2-5.4	0.083	2 (0.7%)	0.0-1.7	1 (0.4%)	0.0-1.1	0.563	2 (0.7%)	0.0-1.7	2 (0.7%)	0.0-1.7	0.997
Grade 1	1 (0.4%)	-	8 (2.9%)	-	-	2 (0.7%)	-	1 (0.4%)	-	-	1 (0.4%)	-	2 (0.7%)	-	-
Grade 2	2 (0.7%)	-	1 (0.4%)	-	-	0 (0.0%)	-	0 (0.0%)	-	-	1 (0.4%)	-	0 (0.0%)	-	-
Grade 3	0 (0.0%)	-	0 (0.0%)	-	-	0 (0.0%)	-	0 (0.0%)	-	-	0 (0.0%)	-	0 (0.0%)	-	-
Irritability	7 (2.5%)	0.7-4.4	31 (11.2%)	7.5-15.0	<0.001	6 (2.2%)	0.5-3.9	5 (1.8%)	0.2-3.4	0.776	3 (1.1%)	0.0-2.3	1 (0.4%)	0.0-1.1	0.316
Grade 1	4 (1.4%)	-	26 (9.4%)	-	-	6 (2.2%)	-	2 (0.7%)	-	-	3 (1.1%)	-	1 (0.4%)	-	-
Grade 2	2 (0.7%)	-	5 (1.8%)	-	-	0 (0.0%)	-	3 (1.1%)	-	-	0 (0.0%)	-	0 (0.0%)	-	-
Grade 3	1 (0.4%)	-	0 (0.0%)	-	-	0 (0.0%)	-	0 (0.0%)	-	-	0 (0.0%)	-	0 (0.0%)	-	-
Vomiting	2 (0.7%)	0.0-1.7	5 (1.8%)	0.2-3.4	0.256	3 (1.1%)	0.0-2.3	2 (0.7%)	0.0-1.7	0.647	1 (0.4%)	0.0-1.1	5 (1.8%)	0.2-3.4	0.102
Grade 1	1 (0.4%)	-	4 (1.4%)	-	-	0 (0.0%)	-	2 (0.7%)	-	-	0 (0.0%)	-	4 (1.4%)	-	-
Grade 2	1 (0.4%)	-	1 (0.4%)	-	-	3 (1.1%)	-	0 (0.0%)	-	-	1 (0.4%)	-	1 (0.4%)	-	-
Grade 3	0 (0.0%)	-	0 (0.0%)	-	-	0 (0.0%)	-	0 (0.0%)	-	-	0 (0.0%)	-	0 (0.0%)	-	-
Diarrhea	14 (5.1%)	2.5-7.7	14 (5.1%)	2.5-7.7	0.989	6 (2.2%)	0.5-3.9	3 (1.1%)	0.0-2.3	0.316	4 (1.4%)	0.0-2.9	5 (1.8%)	0.2-3.4	0.743
Grade 1	8 (2.9%)	-	7 (2.5%)	-	-	5 (1.8%)	-	2 (0.7%)	-	-	1 (0.4%)	-	3 (1.1%)	-	-
Grade 2	6 (2.2%)	-	6 (2.2%)	-	-	1 (0.4%)	-	0 (0.0%)	-	-	3 (1.1%)	-	2 (0.7%)	-	-
Grade 3	0 (0.0%)	-	1 (0.4%)	-	-	0 (0.0%)	-	1 (0.4%)	-	-	0 (0.0%)	-	0 (0.0%)	-	-
Convulsions	0 (0.0%)	-	0 (0.0%)	-	-	0 (0.0%)	-	0 (0.0%)	-	-	0 (0.0%)	-	1 (0.4%)	0.0-1.1	0.317
Grade 1	0 (0.0%)	-	0 (0.0%)	-	-	0 (0.0%)	-	0 (0.0%)	-	-	0 (0.0%)	-	0 (0.0%)	-	-
Grade 2	0 (0.0%)	-	0 (0.0%)	-	-	0 (0.0%)	-	0 (0.0%)	-	-	0 (0.0%)	-	1 (0.4%)	-	-
Grade 3	0 (0.0%)	-	0 (0.0%)	-	-	0 (0.0%)	-	0 (0.0%)	-	-	0 (0.0%)	-	0 (0.0%)	-	-
Cough	3 (1.1%)	0.0-2.3	7 (2.5%)	0.7-4.4	0.203	4 (1.4%)	0.0-2.9	1 (0.4%)	0.0-1.1	0.178	2 (0.7%)	0.0-1.7	3 (1.1%)	0.0-2.3	0.655
Grade 1	2 (0.7%)	-	5 (1.8%)	-	-	3 (1.1%)	-	1 (0.4%)	-	-	1 (0.4%)	-	2 (0.7%)	-	-
Grade 2	1 (0.4%)	-	2 (0.7%)	-	-	1 (0.4%)	-	0 (0.0%)	-	-	1 (0.4%)	-	1 (0.4%)	-	-
Grade 3	0 (0.0%)	-	0 (0.0%)	-	-	0 (0.0%)	-	0 (0.0%)	-	-	0 (0.0%)	-	0 (0.0%)	-	-

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Symptom	3 months					6 to 11 months					12 to 23 months <sup>(5)</sup>				
	CanSinoBio MCV2 candidate (n=276)		Walvax MCV2 (n=276)		P <sup>(2)</sup>	CanSinoBio MCV2 candidate (n=276)		Royal MCV2 (n=276)		P	CanSinoBio MCV2 candidate (n=276)		Royal MCV2 (n=276)		P
	Number (%)	95% CI	Number (%)	95% CI <sup>(1)</sup>		Number (%)	95% CI	Number (%)	95% CI		Number (%)	95% CI	Number (%)	95% CI	
Allergy	0 (0.0%)	–	3 (1.1%)	0.0-2.3	0.083	3 (1.1%)	0.0-2.3	2 (0.7%)	0.0-1.7	0.647	1 (0.4%)	0.0-1.1	5 (1.8%)	0.2-3.4	0.099
Grade 1	0 (0.0%)	–	0 (0.0%)	–	–	0 (0.0%)	–	2 (0.7%)	–	–	1 (0.4%)	–	0 (0.0%)	–	–
Grade 2	0 (0.0%)	–	2 (0.7%)	–	–	3 (1.1%)	–	0 (0.0%)	–	–	0 (0.0%)	–	5 (1.8%)	–	–
Grade 3	0 (0.0%)	–	1 (0.4%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–
Breastfeeding or eating disorders	1 (0.4%)	0.0-1.1	4 (1.4%)	0.0-2.9	0.178	0 (0.0%)	–	1 (0.4%)	0.0-1.1	0.317	1 (0.4%)	0.0-1.1	0 (0.0%)	–	0.317
Grade 1	1 (0.4%)	–	4 (1.4%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–
Grade 2	0 (0.0%)	–	0 (0.0%)	–	–	0 (0.0%)	–	1 (0.4%)	–	–	1 (0.4%)	–	0 (0.0%)	–	–
Grade 3	0 (0.0%)	–	0 (0.0%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–
Unsolicited adverse reactions <sup>(1)</sup>															
Any	1 (0.4%)	0.0-1.1	2 (0.7%)	0.0-1.7	0.562	3 (1.1%)	0.0-2.3	1 (0.4%)	0.0-1.1	0.318	1 (0.4%)	0.0-1.1	1 (0.4%)	0.0-1.1	0.998
Grade 1	1 (0.4%)	–	1 (0.4%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–
Grade 2	0 (0.0%)	–	1 (0.4%)	–	–	2 (0.7%)	–	0 (0.0%)	–	–	0 (0.0%)	–	1 (0.4%)	–	–
Grade 3	0 (0.0%)	–	0 (0.0%)	–	–	1 (0.4%)	–	1 (0.4%)	–	–	1 (0.4%)	–	0 (0.0%)	–	–
Fever	0 (0.0%)	–	0 (0.0%)	–	1.000	1 (0.4%)	0.0-1.1	0 (0.0%)	–	0.317	0 (0.0%)	–	0 (0.0%)	–	–
Grade 1	0 (0.0%)	–	0 (0.0%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–
Grade 2	0 (0.0%)	–	0 (0.0%)	–	–	1 (0.4%)	–	0 (0.0%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–
Grade 3	0 (0.0%)	–	0 (0.0%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–
Respiratory system disorders	1 (0.4%)	0.0-1.1	1 (0.4%)	0.0-1.1	>0.999	0 (0.0%)	–	0 (0.0%)	–	–	0 (0.0%)	–	1 (0.4%)	0.0-1.1	0.317
Grade 1	1 (0.4%)	–	1 (0.4%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–
Grade 2	0 (0.0%)	–	0 (0.0%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–	0 (0.0%)	–	1 (0.4%)	–	–
Grade 3	0 (0.0%)	–	0 (0.0%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–
Convulsions	0 (0.0%)	–	0 (0.0%)	–	–	1 (0.4%)	0.0-1.1	0 (0.0%)	–	0.317	0 (0.0%)	–	0 (0.0%)	–	–
Grade 1	0 (0.0%)	–	0 (0.0%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–
Grade 2	0 (0.0%)	–	0 (0.0%)	–	–	1 (0.4%)	–	0 (0.0%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–
Grade 3	0 (0.0%)	–	0 (0.0%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–
Digestive Disease	0 (0.0%)	–	0 (0.0%)	–	–	0 (0.0%)	–	1 (0.4%)	0.0-1.1	0.317	0 (0.0%)	–	0 (0.0%)	–	–
Grade 1	0 (0.0%)	–	0 (0.0%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–
Grade 2	0 (0.0%)	–	0 (0.0%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–
Grade 3	0 (0.0%)	–	0 (0.0%)	–	–	0 (0.0%)	–	1 (0.4%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–
Other	0 (0.0%)	–	1 (0.4%)	–	–	1 (0.4%)	–	1 (0.4%)	–	–	1 (0.4%)	–	0 (0.0%)	–	–
Grade 1	0 (0.0%)	–	0 (0.0%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–
Grade 2	0 (0.0%)	–	1 (0.4%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–	0 (0.0%)	–	0 (0.0%)	–	–
Grade 3	0 (0.0%)	–	0 (0.0%)	–	–	1 (0.4%)	–	1 (0.4%)	–	–	1 (0.4%)	–	0 (0.0%)	–	–

Source: Phase III clinical trial results summary

- (1) 95% CI refers to 95% confidence interval, indicating 95% of the subjects fall into the relevant range.
- (2) P>0.05 indicates no statistically significant difference in groups. P<0.05 indicates statistically significant difference in groups.
- (3) Solicited adverse events refer to reports that are derived from organized data collection systems, and unsolicited adverse events refer those derived spontaneously outside organized data collection.
- (4) Grade 1 (mild) = Mild reaction  
Grade 2 (moderate) = Moderate reaction  
Grade 3 (severe) = Severe reaction
- (5) According to a 2(0,1) dosing schedule.

**Immunogenicity.** Our MCV2 candidate showed good immunogenicity in this phase III clinical trial as it demonstrated (i) superior immunogenicity in terms of GMT level elicited by the serogroup A antigen in the age groups of 6 to 11 months and 12 to 23 months, respectively, as compared to Royal’s MCV2 products; and (ii) comparable immunogenicity in terms of GMT level in the age group of 3 months as compared to Walvax’s MCV2 products. For details, see “– Advantages of Our MCV2 Candidate – Immunogenicity in terms of seroconversion rate” and see “– Advantages of Our MCV2 Candidate – Immunogenicity in terms of GMT level.”

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*Conclusion.* Our MCV2 candidate was found to be safe and well-tolerated, and showed good immunogenicity in different age groups.

### *Competition*

Our MCV2 candidate is expected to compete with domestic MCV2 products marketed by Walvax, Royal and Beijing Zhifei Lvzhu. The following table sets out the competitive landscape of our MCV2 candidate and marketed MCV2 products in China.

Vaccine	Manufacturer	Comparison against our MCV2 candidate		Price (RMB/dose)	Adjuvant
		Safety	Immunogenicity		
MCV2	Walvax	Our MCV2 candidate had a superior safety profile in the age group of 3 months.	Our MCV2 candidate demonstrated comparable immunogenicity in the age group of 3 months.	Approximately RMB90	No adjuvant
MCV2	Royal	Our MCV2 candidate had a comparable safety profile in both age groups of 6 to 11 months and 12 to 23 months.	Our MCV2 candidate demonstrated superior immunogenicity in both age groups of 6 to 11 months and 12 to 23 months.	Approximately RMB120	No adjuvant
MCV2	Beijing Zhifei Lvzhu	N/A <sup>(1)</sup>	N/A <sup>(1)</sup>	Approximately RMB80	Al(OH) <sub>3</sub>

*Source: Phase III clinical trial results summary; CIC Report*

- (1) No comparison data is available because we generally only conduct comparison studies with similar products in our clinical trial. Beijing Zhifei Lvzhu's MCV2 contains Al(OH)<sub>3</sub>, and therefore we do not consider it to be a similar product.

According to our phase III clinical trial results, our MCV2 candidate demonstrated (i) superior immunogenicity and a comparable safety profile in the age groups of 6 to 11 months and 12 to 23 months compared with Royal's MCV2, and (ii) a superior safety profile and comparable immunogenicity in the age group of 3 months compared with Walvax's MCV2.

In addition, our MCV2 candidate does not contain any adjuvants. In contrast, Beijing Zhifei Lvzhu's MCV2 contain Al(OH)<sub>3</sub>. Although Al(OH)<sub>3</sub> is widely used as an adjuvant in human vaccines, there is a growing concern about the accumulated amount of Al(OH)<sub>3</sub> used in vaccines for pediatrics.

### *Material Communications and Next Steps*

We obtained an umbrella CTA approval for our MCV2 candidate in December 2015. In preparation for the CTA filing with the CFDA for our MCV2 candidate, we did not have material communications with the CFDA.



We filed the NDA for our MCV2 candidate in January 2019, and expect to receive NDA approval in 2019. In addition, we intend to supplement our NDA with results of ongoing persistence and booster studies as they become available. In addition, we are conducting validation of our manufacturing facilities and processes. We expect to pass pre-approval inspection for licensure in 2019 and to launch our MCV2 candidate in the same year.

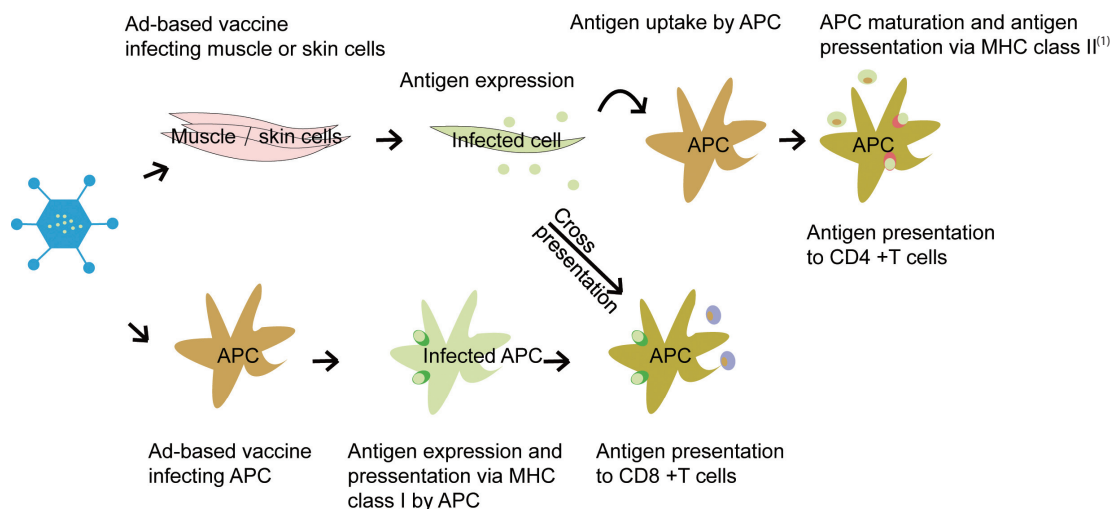
### Ad5-EBOV – Approved for Emergency Use and National Stockpile

Ebola virus disease, or Ebola, is a severe and often fatal illness in humans caused by Ebola viruses. The average Ebola case mortality rate is around 50%. Case mortality rates have varied from 25% to 90% in past outbreaks.

Ad5-EBOV is jointly developed by the Institute of Biotechnology of Academy of Military Medical Sciences and us. It uses adenovirus vector technology to induce the immune response. Ad5-EBOV received NDA approval in China in October 2017, and is approved for emergency use and national stockpile.

### *Mechanism of Action*

EBOV-GP, an Ebola glycoprotein that allows the Ebola virus to enter into cells, is encoded in our viral vector. Ad5-EBOV recruits both B cells and T cells to induce immunity. For more details, please refer to “– Our Vaccine Pipeline – Vaccine Mechanism of Action.” There are two distinct routes to produce immunity. Through the indirect route, muscle cells or keratinocytes are first infected after vaccine injection. EBOV-GP expressed by such infected muscle cell or keratinocyte are presented to CD4+ T cells or cross-presented to CD8+ T cells by APCs. Through the direct route, APCs are directly infected after vaccine injection, and express and present EBOV-GP to CD8+ T cells. CD8+ T cells, also known as T killer cells track down the infected cells. In addition, the expression of the EBOV-GP antigens in the body will stimulate the B cells to produce anti-EBOV-GP antibodies, which may also play a role in the protection offered by the Ad5-EBOV vaccine. The following diagram illustrates the mechanism of action of Ad5-EBOV.



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- (1) MHC class I molecules and MHC class II molecules are two primary classes of major histocompatibility complex (MHC) molecules on the cell surface of all nucleated cells in human bodies. Their function is to bind to antigens derived from pathogens and display them on the cell surface for recognition by the appropriate T cells.

### *Advantages of Our Ad5-EBOV*

Compared with the current vaccine and vaccine candidates, Ad5-EBOV has the following advantages:

- *Less restrictive vaccine storage and distribution.* The GamEvac combination vaccine and most other Ebola virus vaccine candidates require ultra-low temperature storage, below -16°C, which causes difficulties in transportation and use in tropical areas such as Africa. Ad5-EBOV has a better stability profile attributable to its freeze-dried dosage form and is approved to be stored between 2°C to 8°C for 12 months. It can also be kept in a stable state at 37°C for approximately three weeks. This advantage enables easier transportation and use in regions with high temperature climates, such as Africa, where Ebola outbreaks were concentrated in recent years.
- *Less safety concerns.* Current vaccine and vaccine candidates are live attenuated virus vaccines which contain weakened live viral carriers that can replicate in humans. As a result, there is a degree of unpredictability to the stability and safety of such vaccines. In contrast, Ad5-EBOV is an inactive non-replicating viral vector vaccine with less safety concerns. In addition, according to safety data of the phase II clinical trials of Ad5-EBOV, our Ad5-EBOV demonstrated lower incidence of SAEs, as compared with the safety data of the phase III clinical results of VSV-EBOV developed by Merck.
- *Based on current outbreak Zaire strain.* To date, five different species of EBOV have been identified, of which Zaire has caused the greatest number of deaths. The antigen for Ad5-EBOV is based on the 2014 Makona strain of the Zaire Ebola virus, which caused the most serious Ebola outbreak in history and two recent outbreaks since 2014. Other vaccine candidates are based on the 1976 Zaire-Mayinga strain or 1995 Zaire strain. In addition, based on the sequence similarity in EBOV-GP among different strains of Zaire Ebola virus, Ad5-EBOV has been proved to protect against all the other Zaire strains for emergency use and has a potential to protect against evolved Zaire Ebola viruses, indicating that it is a potential broad spectrum protection vaccine against the Zaire Ebola virus.

### ***Summary of Clinical Trials***

#### ***Phase Ia Clinical Trial***

*Study design.* Our phase Ia clinical trial was a randomized, double-blind, placebo-controlled trial conducted on 120 healthy adults aged 18 to 60 years old in Jiangsu Province, China. 60 subjects were randomly assigned and inoculated with a low dose ( $4.0 \times 10^{10}$  viral particles) or placebo control according to a 2:1 proportion. Seven days after safety and tolerability were demonstrated in the initial low dose and placebo control groups, another 60 subjects were randomly assigned and inoculated with a high dose ( $1.6 \times 10^{11}$  viral particles) or placebo control according to a 2:1 proportion.

*Safety.* Only grade 1 (mild) local responses such as inoculation site and surrounding pain were observed, there were no vaccination-related grade 3 or higher adverse events, similar to other reports of Ebola vaccine, suggesting good tolerance of Ad5-EBOV.

*Immunogenicity.* Immunogenicity results showed that EBOV-GP antibody positive rates and GMT levels in both the low and high dose group were 95.0% and 100%, respectively, and 683 and 1,306, respectively, on 28 days after immunization. High dose vaccine showed better immunogenicity, compared with the low dose vaccine.

#### ***Phase Ib Clinical Trial***

*Study design.* Our phase Ib clinical trial was a single-center, open-label trial that evaluated the safety, tolerability and immunogenicity of Ad5-EBOV. Our phase Ib clinical trial had a total of 61 healthy African subjects aged between 18 to 60 years old in Hangzhou. Two dose groups were set, with 31 subjects in the lower dose group ( $8 \times 10^{10}$  viral particles) and 30 subjects in the higher dose group ( $1.6 \times 10^{11}$  viral particles).

*Safety.* In the phase Ib clinical trial, all of the adverse events were mild (grade 1) or moderate (grade 2). There were no serious adverse events in any subjects.

*Immunogenicity.* EBOV-GP antibody titers were significantly increased in subjects in the low dose and high dose groups on day 14 with a GMT of 1,374 and 1,186, respectively, and on day 28 with a GMT of 1,919 and 1,684, respectively. T-cell responses also peaked at day 14. Furthermore, no racial or ethnic difference in immunoresponse between the African and Asian racial group was identified between this phase Ib clinical trial and the phase Ia clinical trial.

#### ***Phase II Clinical Trial – Registration Trial***

*Study objective.* The primary purpose of our phase II clinical trial was to assess the efficacy and safety of Ad5-EBOV in a low dose group ( $8.0 \times 10^{10}$  viral particles) and high dose group ( $1.6 \times 10^{11}$  viral particles).

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*Study design.* Our phase II clinical trial is a single-center, randomized, double-blind, placebo-controlled trial conducted in Sierra Leone on 500 healthy adults aged 18 to 50 years old. Participants were sequentially enrolled and randomly assigned to receive the high-dose vaccine, low-dose vaccine or placebo in the ratio of 2:1:1.

*Safety.* The phase II clinical trial showed that Ad5-EBOV to be safe and well-tolerated. Most adverse events were mild (grade 1) or moderate (grade 2). Three serious adverse events (malaria, gastroenteritis, and one fatal asthma episode) were reported in the high-dose vaccine group, but none were deemed to be related to the vaccine. Both non-lethal events were considered unrelated to the vaccine and resolved after hospital admission. The following table sets out the adverse events statistics within seven days and 28 days, after the vaccination.

	<b>Placebo (n = 125)</b>	<b>Low-dose vaccine (n = 125 )</b>	<b>High-dose vaccine (n = 250)</b>	<b>P value</b>
Solicited adverse events <sup>(2)</sup> within 7 days				
Any	54 (43%)	60 (48%)	132 (53%)	0.2093
Grade 1 <sup>(1)</sup>	49 (39%)	56 (45%)	121 (48%)	0.2449
Grade 2	10 (8%)	12 (10%)	33 (13%)	0.3039
Grade 3	1 (1%)	0	3 (1%)	0.8110
Solicited injection-site adverse events within 7 days				
Any	17 (14%)	31 (25%)	65 (26%)	0.0169
Pain				
Grade 1	14 (11%)	25 (20%)	48 (19%)	0.1009
Grade 2	1 (1%)	1 (1%)	6 (2%)	0.4542
Induration				
Grade 1	0	1 (1%)	3 (1%)	0.8110
Grade 2	0	1 (1%)	2 (1%)	0.8114
Grade 3	0	0	1 (<1%)	1.0000
Redness				
Grade 1	2 (2%)	2 (2%)	4 (2%)	1.0000
Grade 2	0	0	5 (2%)	0.0802
Swelling				
Grade 1	0	2 (2%)	5 (2%)	0.3660
Grade 2	0	1 (1%)	1 (<1%)	1.0000
Grade 3	0	0	1 (<1%)	1.0000
Rash				
Grade 1	1 (1%)	0	0	0.5000
Itch				
Grade 1	2 (2%)	6 (5%)	12 (5%)	0.3138
Grade 2	0	0	1 (<1%)	1.0000

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	Placebo (n = 125)	Low-dose vaccine (n = 125 )	High-dose vaccine (n = 250)	P value
Solicited systemic adverse events within 7 days				
Any	45 (36%)	45 (36%)	105 (42%)	0.3954
Fever				
Grade 1	11 (9%)	11 (9%)	20 (8%)	0.9328
Grade 2	2 (2%)	3 (2%)	8 (3%)	0.7158
Headache				
Grade 1	21 (17%)	22 (18%)	56 (22%)	0.3618
Grade 2	6 (5%)	4 (3%)	11 (4%)	0.8778
Grade 3	1 (1%)	0	1 (<1%)	1.0000
Fatigue				
Grade 1	8 (6%)	10 (8%)	22 (9%)	0.7685
Grade 2	0	1 (1%)	3 (1%)	0.8110
Vomiting				
Grade 1	0	2 (2%)	2 (1%)	0.3727
Diarrhea				
Grade 1	3 (2%)	3 (2%)	3 (1%)	0.5023
Grade 2	1 (1%)	0	1 (<1%)	1.0000
Muscle pain				
Grade 1	4 (3%)	7 (6%)	12 (5%)	0.6696
Grade 2	1 (1%)	1 (1%)	3 (1%)	1.0000
Joint pain				
Grade 1	2 (2%)	7 (6%)	18 (7%)	0.0577
Grade 2	1 (1%)	2 (2%)	1 (<1%)	0.5610
Throat pain				
Grade 1	0	1 (1%)	2 (1%)	0.8114
Grade 2	0	0	1 (<1%)	1.0000
Cough				
Grade 1	1 (1%)	0	4 (2%)	0.4500
Grade 2	0	0	1 (<1%)	1.0000
Unsolicited adverse events <sup>(2)</sup> within 28 days				
Any	67 (54%)	81 (65%)	147 (59%)	0.1982
Grade 1	63 (50%)	78 (62%)	143 (57%)	0.1617
Grade 2	10 (8%)	8 (6%)	14 (6%)	0.6421

Source: *Safety and immunogenicity of a recombinant adenovirus type-5 vector-based Ebola vaccine in healthy adults in Sierra Leone: a single-centre, randomised, double-blind, placebo-controlled, phase 2 trial, Lancet (2017); clinical trial results summary*

- (1) Grade 1 (mild) = Mild reaction  
Grade 2 (moderate) = Moderate reaction  
Grade 3 (severe) = Severe reaction
- (2) Solicited adverse events refer to reports that are derived from organized data collection systems, and unsolicited adverse events refer those derived spontaneously outside organized data collection.

**Immunogenicity.** The phase II clinical trial primarily used GMT to assess EBOV-GP-specific antibody responses. The higher the GMT level, the stronger the immune responses. Antibody response was detected in at least 96% of subjects in both high-dose and low-dose groups from day 14 onwards, and peaked at day 28.

	Day 14			Day 28			Day 168		
	Placebo (n = 125)	Low-dose vaccine (n = 123)	High-dose vaccine (n = 248)	Placebo (n = 125)	Low-dose vaccine (n = 123)	High-dose vaccine (n = 249)	Placebo (n = 124)	Low-dose vaccine (n = 123)	High-dose vaccine (n = 246)
GMT (95% CI) <sup>(1)(2)</sup>	6.2 (5.2-7.3)	1251.0 (976.6- 1602.5)	1728.4 (1459.4- 2047.0)	6.8 (5.5-8.3)	1471.8 (1151.0- 1881.8)	2043.1 (1762.4- 2368.4)	6.0 (5.1-7.0)	223.3 (148.2- 336.4)	254.2 (185.0- 349.5)
Number of responders (%; 95% CI) <sup>(1)(2)</sup>	6 (5%; 2-10)	118 (96%; 91-99)	241 (97%; 94-99)	8 (6%; 3-12)	118 (96%; 91-99)	244 (98%; 95-99)	5 (4%; 1-9)	93 (76%; 67-83)	179 (73%; 67-78)

*Source: Safety and immunogenicity of a recombinant adenovirus type-5 vector-based Ebola vaccine in healthy adults in Sierra Leone: a single-center, randomized, double-blind, placebo-controlled, phase 2 trial, Lancet (2017)*

- (1) 95% CI refers to 95% confidence interval, indicating 95% of the subjects fall into the relevant range.  
 (2) Significant differences were noted across treatment groups, with  $p < 0.0001$  at all three timepoints.

**Conclusion.** Ad5-EBOV is found to be safe and satisfactorily immunogenic in healthy Sierra Leonean adults, and  $8.0 \times 10^{10}$  viral particles was the optimal dose. However, the short duration of antibody responses raises the need for prime-boost immunization.

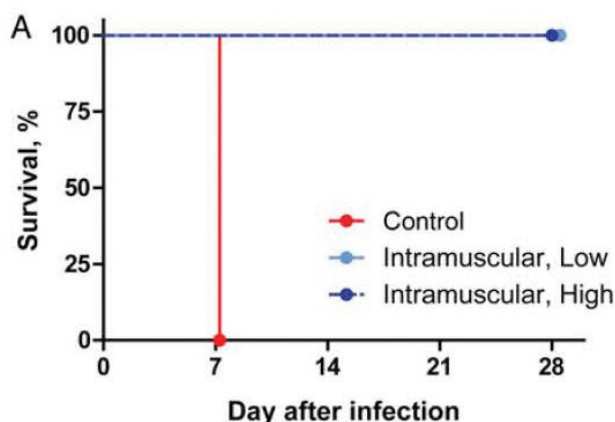
### Summary of Protection Challenge Studies

Ad5-EBOV received NDA approval based on immunogenicity data and animal protection challenge studies. We plan to conduct efficacy studies in people in the future.

#### Protection Challenge Study in Cynomolgus Monkeys

**Study design.** Eight female cynomolgus monkeys with a weight range of 3.1 kg to 7.8 kg and an age range from three to ten years, were randomly divided into three groups. Ad5-EBOV intramuscular injection was administered to two study groups, including one high dose group ( $4 \times 10^{10}$  viral particles) and one low dose group ( $2 \times 10^{11}$  viral particles), with three cynomolgus monkeys in each group. Two cynomolgus monkeys in a control group were injected with Ad5-lacZ as a mock treatment, with one receiving intramuscular injection and the other receiving intranasal injection. 28 days after immunization, all the cynomolgus monkeys were challenged with  $1000 \times LD_{50}$  wild-type Makona Ebola virus. Survival rate and weight change were observed within 16 days after challenge, and the survival rate was then observed for another 12 days, for a total of 28 days.

*Efficacy.* The protection challenge study showed that both monkeys in the control group died within seven days of the challenge and all of the monkeys in both high and low dose vaccine groups survived. The following diagram illustrates the survival rates in the study:



Source: Recombinant Ebola Virus Vaccine (Ad5-EBOV) Phase II Clinical Trial Protocol

#### *Efficacy Comparison Studies with VSV-EBOV*

Correlation between immunogenicity in terms of EBOV-GP antibody titers and efficacy was established in a monkey model study. We compared serum antibody titers in Ad5-EBOV clinical trials (phase Ia, phase Ib and phase II clinical trials) and one of the VSV-EBOV phase I trials. In these studies, the EC90 (90% effective concentration) method was used to measure antibody titers.

#### **GP antibody EC90 GMT and serological conversion rates of Ad5-EBOV 28 days post vaccination**

<b>Trial</b>	<b>Site</b>	<b>Dose</b>	<b>Number of participants</b>	<b>EC90 GMT</b>	<b>Serological conversion rate (EC90≥10)</b>	<b>Efficacy rate (EC90≥500)</b>
A randomized, double-blind, placebo-controlled, phase Ia trial	Taizhou, China	Placebo	40	5	0	0
		$4.0 \times 10^{10}$ viral particles	40	683	95%	65%
		$1.6 \times 10^{11}$ viral particles	40	1,306	100%	95%
A single-center, open-label Phase Ib clinical	Hangzhou, China	$8.0 \times 10^{10}$ viral particles	31	1,919	100%	96.67%
		$1.6 \times 10^{11}$ viral particles	30	1,685	100%	96.77%

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<b>Trial</b>	<b>Site</b>	<b>Dose</b>	<b>Number of participants</b>	<b>EC90 GMT</b>	<b>Serological conversion rate (EC90≥10)</b>	<b>Efficacy rate (EC90≥500)</b>
A single-center, randomized, double-blind, placebo-controlled, phase II trial	Sierra Leone	Placebo	125	7	6%	3.20%
		$8.0 \times 10^{10}$ viral particles	123	1,472	96%	89.43%
		$1.6 \times 10^{11}$ viral particles	249	2,043	98%	95.58%

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*Source: Clinical trial data for phase Ia, Ib and II clinical trials*

### GP antibody EC90 of VSV-EBOV 28 days post vaccination

<b>Group</b>	<b>Statistic</b>	<b>EC90 (Zaire-Mayinga)</b>
Placebo	Number of subjects	11
	GMT	4
	Median	4
	Minimum-maximum	1-21
$3 \times 10^6$ PFU	Number of subjects	20
	GMT	283
	Median	381
	Minimum-maximum	1-12,351
$2 \times 10^7$ PFU	Number of subjects	20
	GMT	1,429
	Median	1,025
	Minimum-maximum	271-17,581

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*Source: A Recombinant Vesicular Stomatitis Virus Ebola Vaccine, the New England Journal of Medicine (2015)*

28 days after the Ad5-EBOV vaccination, the antibody GMT levels of  $8.0 \times 10^{10}$  viral particles group (target single human dose) were 1,919 and 1,472, in phase Ib clinical trial and phase II clinical trial, respectively, with a statistical average of 1,553, which is close to VSV-EBOV's result of 1,429 (high dose).

These results indicate that the level of anti-EBOV-GP antibody induced by Ad5-EBOV ( $8.0 \times 10^{10}$  viral particles) and VSV-EBOV ( $2 \times 10^7$  PFU) is equivalent in humans, which indicates that similar efficacy of these two vaccines.



### ***NDA Approval***

Ad5-EBOV received NDA approval in China in October 2017 only for emergency use and national stockpile. According to the NDA approval, the approved Ad5-EBOV contains  $8.0 \times 10^{10}$  viral particles per dose, and one dose (2 vials) is recommended for primary vaccination. The shelf life of Ad5-EBOV is 12 months. We have obtained the GMP certificate for Ad5-EBOV.

### ***Competition***

Ad5-EBOV is the first approved Ebola virus vaccine in China for emergency use and national stockpile. There is no other approved Ebola virus vaccine in China, GamEvac combination vaccine received regulatory approval in Russia in 2016 shortly after completion of phase I clinical trial (24 subjects) and phase II clinical trial (59 subjects). In addition, there are a number of vaccine candidates in phase II/III clinical trials, including VSV-EBOV developed by Merck, CAD3-EBOV developed by GSK, and Ad26.ZEBOV and MVA-BN developed by Johnson & Johnson. A comparison of different Ebola vaccines and vaccine candidates is set out below:

<b>Vaccines/Vaccine candidates</b>	<b>Manufacturer/ Developer</b>	<b>Stage of development and country of approval process</b>	<b>Strain virus</b>	<b>Storage condition</b>	<b>Vaccine type</b>	<b>Safety (in terms of vaccine-related SAE)</b>
Ad5-EBOV	CanSinoBio	Approved in China for emergency use and national stockpile	Ebola virus Makona (2014)	Stored at 2°C to 8°C for 12 months, and remains stable at 37°C for about three weeks	Inactive non-replicating vector vaccine	No vaccine-related SAEs was reported
GamEvac-combination vaccine	Gamaleya Research Institute	Approved in Russia Phase IV clinical trial	Ebola virus variant Mayinga (1976)	Stored at -16°C or below	Live attenuated virus vaccine	No vaccine-related SAEs were reported in its phase I/II clinical trial
VSV-EBOV	Merck	Phase III clinical trial for FDA registration in the U.S. (being used in the latest 2018 Ebola outbreak)	Ebola virus Kikwit (1995)	Stored at -70°C or below, and remains stable for only one week at 4°C	Live attenuated virus vaccine, replicating	No vaccine-related SAEs was reported in its phase III clinical trial
Ad26.ZEBOV	Johnson & Johnson	Phase III clinical trial for FDA registration in the U.S.	Ebola virus variant Mayinga (1976)	Stored at -20°C for 12 months or longer and at 2°~8°C for 6 months	Live attenuated virus vaccine	No vaccine-related SAEs reported in its phase I clinical trail

## BUSINESS

Vaccines/Vaccine candidates	Manufacturer/ Developer	Stage of development and country of approval process	Strain virus	Storage condition	Vaccine type	Safety (in terms of vaccine-related SAE)
CAD3-EBOV	GSK	Phase II clinical trial for FDA registration in the U.S.	Ebola virus Kikwit (1995)	Stored at -70°C or below, and remains stable for only one week at 4°C	Live attenuated virus vaccine	Vaccine-related SAEs were reported in phase I clinical trial

*Source: CFDA, FDA, CIC Report*

As indicated in the table above, GamEvac combination vaccine is currently in phase IV clinical trial stage, according to the CIC Report. Although not approved by the FDA, VSV-EBOV developed by Merck has been used at a small scale in the 2018 Ebola outbreak in the Democratic Republic of Congo. Except for CAD3-EBOV developed by GSK, the safety profile of each of the other vaccine and vaccine candidates is comparable to ours.

### ***Material Communications and Next Steps***

In preparation for the NDA filing for Ad5-EBOV with the CFDA, we did not have material communications with the CFDA. We are actively communicating with the PRC government regarding stockpile purchases. We have submitted “Abbreviated Product Summary File for WHO Emergency Assessment” to the WHO for our Ad5-EBOV for the control of future outbreaks. We will also continue our discussions with authorities in other nations and international agencies such as GAVI to explore international stockpile opportunities.

We currently do not expect Ad5-EBOV to contribute significantly to our business commercially in the future, primarily because the global stockpile and emergency use market for Ad5-EBOV is limited and steady at RMB200 million per year for the next decade and the potential traveler market size is expected to be less than RMB300 million by 2030. We do not expect to incur significant costs or allocate significant resources for further studies of Ad5-EBOV, nor do we have any material commitments with respect to Ad5-EBOV. Our further studies of Ad5-EBOV will depend on the PRC government’s plan with respect to Ebola vaccines, and we expect to rely primarily on government grants to conduct such studies, if any.

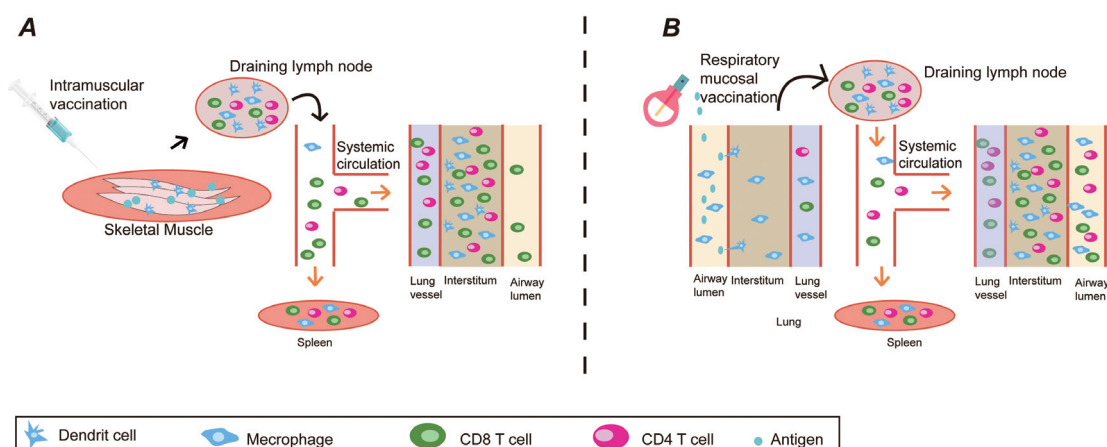
### **Tuberculosis Booster Vaccine (Ad5Ag85A) – Clinical Trial Stage Candidate**

China has the world’s third largest TB-infected population. TB infection remains a major public health concern in China with an annual incidence of approximately 0.9 million new cases. Currently, BCG is the only available TB vaccine in the world and all newborns in the PRC are required to receive the BCG vaccination. However, BCG has several limitations, such as declining efficacy with time and inability to improve protection through repeated immunization. We are developing a globally innovative TB Booster candidate for the BCG-vaccinated population. The phase Ia clinical trial showed the Ad5Ag85A TB candidate to be safe and well tolerated, and able to boost the immunity in the BCG-vaccinated population.

We obtained a world-wide exclusive license from McMaster University to develop and commercialize products in the tuberculosis field based on technology information rights owned by McMaster University related to TB Booster and its phase I clinical trial, as well as a non-exclusive sub-license to relevant adenovirus patent rights licensed to McMaster University. See “– Our Licensing Arrangements and Collaboration – Licensing Agreements Relating to Our Key Products – Exclusive License Agreement with McMaster University” for more information.

### ***Mechanism of Action***

Our TB Booster candidate is developed using the same adenovirus-based viral vector technology we used for Ad5-EBOV. Our TB Booster candidate is able to express the immune dominant TB antigen, the Ag85A protein, through both intramuscular immunization and respiratory mucosal immunization. BCG and a majority of global TB vaccine candidates only use intramuscular immunization, which results in antigen (Ag85A)-specific T cell priming in the local draining lymph nodes. For intramuscular immunization, the majority of activated effector T cells populate the peripheral lymphoid tissues such as the spleen via the systemic circulation and a significant number of these cells enter the lung interstitium via the pulmonary circulation. Very few of these cells, however, enter the airway lumen. In contrast, using respiratory mucosal immunization, the majority of effector T cells primed in the local draining lymph nodes populate both the lung interstitium and the airway lumen, while relatively few cells populate the peripheral lymphoid tissues such as the spleen. As a result, respiratory mucosal vaccination is superior to intramuscular vaccination in inducing protection to pulmonary TB by promoting immune protective T cells on the surface of respiratory mucosa, the route of entry for *M. tuberculosis* bacteria. The following diagram illustrates the mechanisms of action of intramuscular vaccination and respiratory mucosal vaccination:



### ***Limitations of BCG***

BCG, the only available TB vaccine in the world, has been used globally for more than 50 years. Limitations of BCG primarily include:

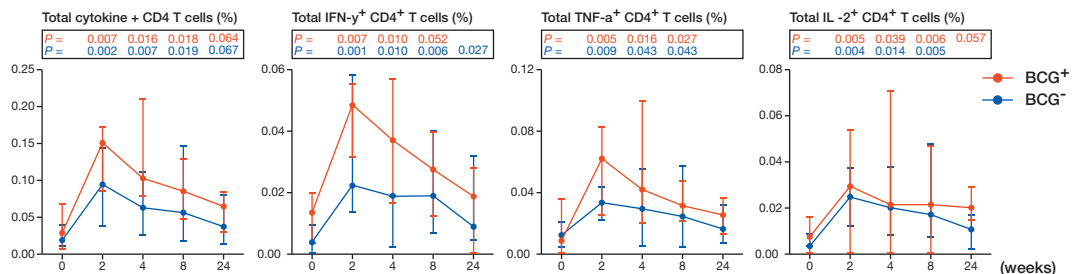
- *Declining immunogenicity.* Although BCG has been shown to prevent about 60% to 90% of cases of meningeal TB and disseminated TB in young children, its immunogenic response declines after 10 to 20 years after primary vaccination, and therefore does not provide effective protection for adults.
- *Repeated immunization does not improve efficacy.* Repeated BCG immunizations are unable to improve protection after BCG primary vaccination.

### ***Advantages of Our TB Booster Candidate***

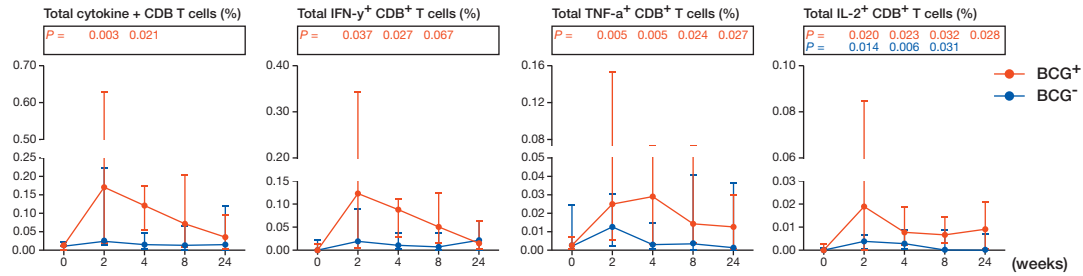
Phase Ia intramuscular vaccination trial results have demonstrated our TB Booster candidate to be safe, well-tolerated and immunogenic in the BCG-vaccinated population.

*Safety.* Phase Ia clinical trial results have shown the TB Booster candidate to be safe and well tolerated. The most common adverse effects were mild (grade 1), including pain, redness, headache, fatigue or malaise. There was one serious adverse event and six upper respiratory tract infections that were not related to the vaccination.

*Immunogenicity.* Phase Ia clinical trial results have shown the TB Booster candidate to activate both T helper cells through cytokines and T killer cells in BCG-naïve subjects and BCG-vaccinated subjects. However, the activation rates of T helper cells and T killer cells in BCG-vaccinated subjects were markedly higher than that in BCG-naïve subjects. The higher the activation rates, the stronger the immune responses. Therefore, the phase Ia clinical trial results indicated a strong booster effect in BCG-vaccinated subjects. The following diagrams illustrate the activation rates of T helper cells and T killer cells, respectively, by all three cytokines (IFN- $\gamma$ , TNF- $\alpha$  and IL-2) and by each cytokine.



Source: A Human Type 5 Adenovirus-Based Tuberculosis Vaccine Induces Robust T Cell Responses in Humans Despite Preexisting Anti-Adenovirus Immunity, *Science Translational Medicine* (2013)



\* P>0.05 indicates no significant difference in groups. P<0.05 indicates significant difference in groups.

Source: A Human Type 5 Adenovirus-Based Tuberculosis Vaccine Induces Robust T Cell Responses in Humans Despite Preexisting Anti-Adenovirus Immunity, *Science Translational Medicine* (2013)

In addition, animal protection studies have suggested respiratory mucosal immunization with our TB Booster candidate delivered better protection. See “– Summary of Animal Protection Studies.”

### Summary of Phase Ia Clinical Trial

**Study objective.** The primary purpose of our phase Ia clinical trial was to assess the safety and immunogenicity of our TB Booster candidate.

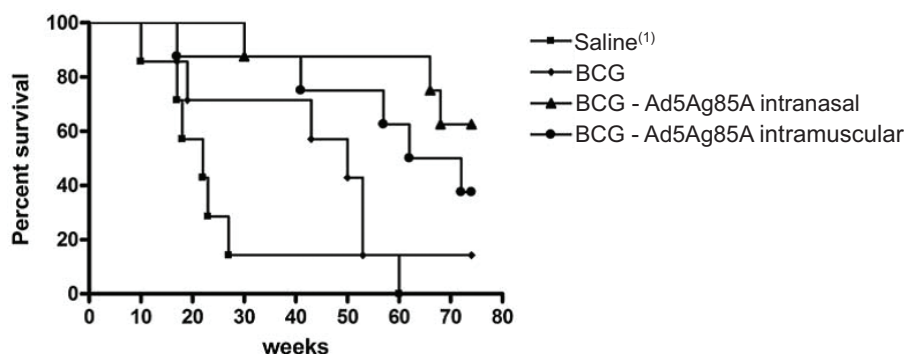
**Study design.** Our phase Ia clinical trial was an open-label, single-center clinical trial conducted by our co-investigator at McMaster University in Canada as agreed under our license agreement with McMaster University. The phase Ia clinical trial was conducted on 12 healthy male subjects and 12 healthy female subjects. These subjects ranged from 21 to 49 years old in the BCG-naïve group, and 22 to 51 years old in the BCG-vaccinated group. We intend to conduct additional studies on lower age groups in further clinical trials for the target population of our TB Booster candidate of 4 to 18 years old. At the baseline visit, blood was drawn for immune analysis, and Ad5Ag85A ( $3.2 \times 10^9$  viral particles) diluted in 1 ml of sterile water was injected intramuscularly to the deltoid muscle of the right arm of subjects in the BCG-naïve groups and to the arm contralateral to the BCG-injected group for subjects in the BCG-vaccinated group. The subjects were monitored medically for local and systemic adverse effects at 48 hours and at 1, 2, 4, 8, 16, 24, and 26 weeks after vaccination. At weeks 2, 4, 8, and 24, blood was also drawn for immune analysis. Local and systemic symptoms and temperature were recorded daily for 5 days after vaccination.

## *Summary of Animal Protection Studies*

### *Guinea Pigs Study*

*Study design.* 32 guinea pigs were randomly assigned to four groups. One group was the negative control without any vaccination. The three other groups were vaccinated with BCG, among which one group did not receive any booster vaccination, one group received booster vaccination with TB Booster through intramuscular injection, and one group received booster vaccination with TB Booster through intranasal mucosal immunization. Following the completion of both primary vaccinations and booster vaccinations (if applicable), the four groups were challenged with a low dose of the *M.tuberculosis* (virulent strain H37Rv) via the respiratory route by aerosol.

*Efficacy.* At the time the study was terminated (74 weeks post-challenge), only about 10% of the BCG-immunized guinea pigs were still alive. In contrast, 40% of the guinea pigs boosted with TB Booster through intramuscular injection survived the challenge. When the TB Booster was administrated by intranasal mucosal immunization, more than 60% of the guinea pigs in the group survived at the end of the study. These results demonstrate that our TB Booster is effective in boosting the immunity established by BCG, and greater protection can be achieved by mucosal immunization with our TB Booster. The following diagram illustrates the survival rates of each group by the end of the challenge study:



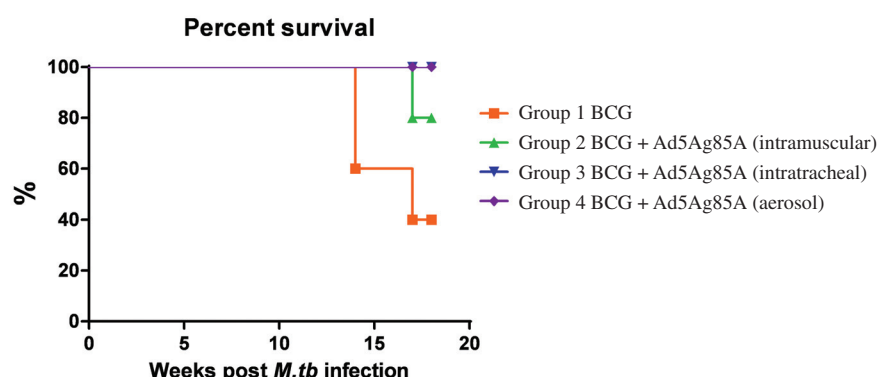
Source: *Intranasal Mucosal Boosting with an Adenovirus-Vectored Vaccine Markedly Enhances the Protection of BCG-Primed Guinea Pigs against Pulmonary Tuberculosis*, PLoS ONE (2009)

(1) Negative control group

### *Non-human Primates Study (Chinese Rhesus Monkeys)*

*Study design.* 24 Chinese rhesus monkeys were randomly assigned to four groups and were vaccinated with BCG. One group received booster vaccination with TB Booster by intramuscular injection. Two groups received booster vaccination with TB Booster candidate by mucosal immunization through intratracheal instillation and aerosol, respectively. Challenge with *M.tuberculosis* (Erdman S-1 K01 strain) was carried out through bronchoscopic instillation.

*Efficacy.* BCG vaccination and BCG vaccination with TB Booster administered through intramuscular injection were shown to provide partial protection, with survival rates of 40% and 80%, respectively. Both vaccination groups which were BCG-vaccinated and boosted with TB Booster through mucosal immunization, had a survival rate of 100%. The following diagram illustrates the survival rates of each group by the end of the challenge study:



*Source: AdHu5Ag85A Respiratory Mucosal Boost Immunization Enhances Protection against Pulmonary Tuberculosis in BCG-primed Non-human Primates (2015)*

### Competition

To date, there is no BCG booster vaccine or vaccine candidate in the world. The following table illustrates current TB vaccine candidates being developed by PRC domestic companies:

Vaccine candidate	Developer	Stage of development	Start of current phase	Target population	Age indication
TB Booster	CanSinoBio	Phase Ib (Canada) <sup>(1)</sup>	February 2018	BCG-vaccinated population	4 to 18 years old
AEC/BC02	Anhui Zhifei Longkema Biopharmaceutical Co., Ltd.	Phase I	December 2016	TB carriers	18 to 45 years old

*Source: CIC Report*

(1) A CTA to NMPA will be filed in 2019 following the completion of the phase Ib clinical trial in Canada.

Our TB Booster candidate is a potential globally innovative and the first TB booster vaccine following BCG vaccination to address the unmet needs for BCG booster vaccination in China. This unmet need arises because BCG is a mandatory vaccine for all newborns in China, however, immunogenicity afforded by the BCG vaccine declines over time. The only other TB vaccine candidate in China, which is not a booster vaccine for BCG, is AEC/BC02 developed by Zhifei Longkema. AEC/BC02 is for TB carriers, and not for TB prevention for the vast healthy population in China. In addition, our TB Booster candidate is indicated for the age group of 4 to 18 years old, which provides earlier protection against TB infection compared with AEC/BC02.

### ***Material Communications and Next Steps***

Our phase Ib clinical trial is being conducted in Canada to evaluate the safety and immune responses stimulated by the TB Booster candidate in the blood and lungs. The first two volunteers were vaccinated in April 2018. We expect the phase Ib clinical trial to be completed by the end of 2019.

We plan to file a CTA with the NMPA in 2019 following the completion of the phase Ib clinical trial in Canada. As a globally innovative vaccine candidate with two clinical trials completed overseas and selected as National Science and Technology Major Project, we believe our TB Booster candidate will qualify for priority review by the NMPA. Upon receiving CTA approval, we expect to only require bridging clinical studies prior to commencing a phase II clinical trial in 2020 because we will have overseas clinical data for our TB Booster candidate. As we have not filed a CTA with the NMPA, we have not had any material communications with the NMPA to date.

### **DTcP Vaccine Candidates**

#### ***Overview***

Diphtheria, tetanus, and pertussis, or DTP, are serious diseases caused by bacteria. With high vaccination coverage, the incidence of diphtheria and tetanus have been well-controlled, however, the re-emergence of pertussis in the post-vaccination era has been reported in China with an upward trend of yearly incidence of, and deaths from, pertussis in recent years. The following table sets out the primary DTP vaccines in China and in the U.S., respectively:

<b>Vaccine</b>	<b>Age group</b>		
	<b>Infants (0-2 years old)</b>	<b>Children (4 – 6 years old)</b>	<b>Adolescents and adults<sup>(1)</sup> (10 years old or above)</b>
China: Co-purified DTaP vaccines <sup>(2)</sup>	Four doses	Booster vaccination by DT vaccines (no pertussis component)	No booster vaccination procedure
U.S.: DTcP vaccines	Four doses	Fifth dose	Sixth dose

*Source: CIC Report*

- (1) The antigen amounts for infants and children are generally higher than that for adolescents and adults.
- (2) The only vaccine in China with a DTcP component is Pentaxim marketed by Sanofi Pasteur, which is a DTcP-IPV-Hib combination vaccine. Pentaxim accounted for 3.6% of the DTP vaccine market in China in 2017 in terms of sales volume. Pentaxim is approved for infants below 2 years old.



In China, 96.4% of the DTP vaccine market consists of co-purified DTaP vaccines in terms of sales volume, while most developed countries, such as the United States, use DTcP vaccines. Immunity protection elicited by major pertussis antigens (FHA and PT) declines over time. However, unlike DTcP vaccines, co-purified DTaP vaccines in China only protect infants below 2 years old and cannot be effectively used as a booster vaccine to provide long-lasting immunity. As a result, against the backdrop of pertussis re-emergence in the post-vaccination era, there is an urgent demand for better DTP vaccines in China.

We are developing a comprehensive DTcP vaccine portfolio covering different age groups. Our DTcP vaccine candidates combine diphtheria and tetanus antigens DT and TT, and component pertussis antigens. Following injection, these antigens elicit immunogenicity through both T cells and B cells. For more details, see “– Our Vaccine Pipeline – Vaccine Mechanism of Action.”

### *DTcP Infant Candidate – Clinical Trial Stage*

We are developing a potential best-in-class DTcP vaccine for infants, or DTcP Infant candidate, for primary vaccination. The manufacturing process of DTaP vaccines involves co-purification of the pertussis antigens, which results in the quantities of each pertussis antigen varying from batch to batch. In contrast, each pertussis antigen of DTcP vaccines is purified individually and are subsequently combined in a defined ratio, hence ensuring a fixed and consistent composition. Compared with Pentaxim, the only DTcP vaccine in China, our DTcP Infant candidate contains three pertussis antigens as compared to two pertussis antigens, which translates to better protection.

### *Limitations of Co-purified DTaP Vaccines*

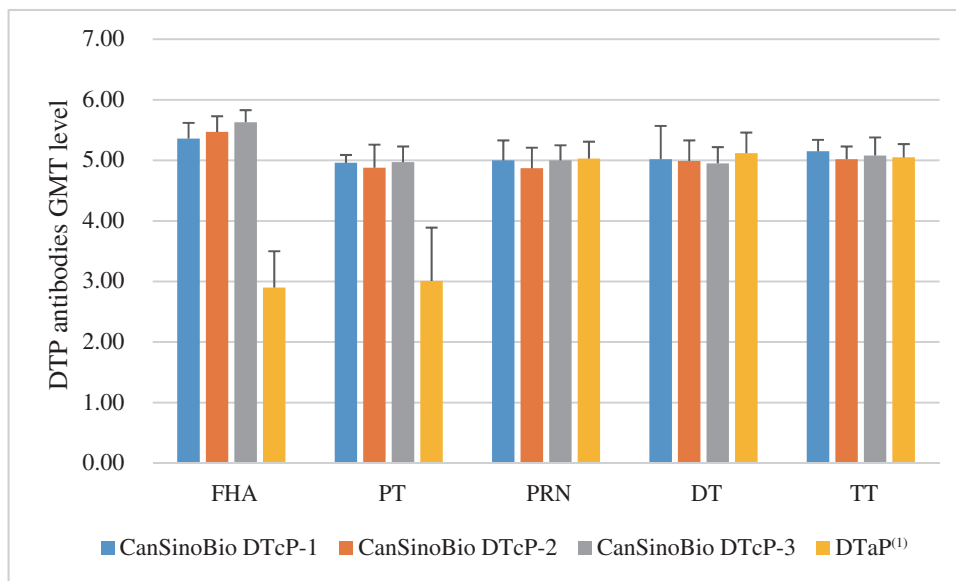
Co-purified DTaP vaccines generally have the following limitations in preventing pertussis:

- *Low immunogenicity.* Pre-clinical studies of our DTcP Infant candidate showed that the GMT level of antibodies against pertussis elicited by co-purified DTaP vaccines was substantially lower than that of our DTcP Infant candidate.
- *Inconsistent immunogenicity.* As antigens of co-purified DTaP vaccines are co-purified, it is difficult to accurately quantify the amounts of component pertussis antigens in such vaccines, which translates to inconsistent immunogenicity.
- *No effective booster schedule.* Immunity induced by major pertussis antigens (FHA and PT) declines over time and cannot provide effective protection for population above 4 years old. Co-purified DTaP vaccines in China do not have an effective booster schedule for children and adults after primary vaccination, and therefore no long-lasting protection against pertussis can be provided.

### *Advantages of Our DTcP Infant Candidate*

Our DTcP Infant candidate addresses the limitations of co-purified DTaP vaccines in the following ways:

- *Significantly better immunogenicity.* According to pre-clinical studies, compared with co-purified DTaP vaccines, our DTcP Infant candidate demonstrated significantly better immunogenicity for preventing pertussis and comparable immunogenicity for preventing diphtheria and tetanus, therefore demonstrating significantly better immunogenicity against DTP overall. The following diagram illustrates the pre-clinical results of antibody GMT levels of our DTcP Infant candidate.



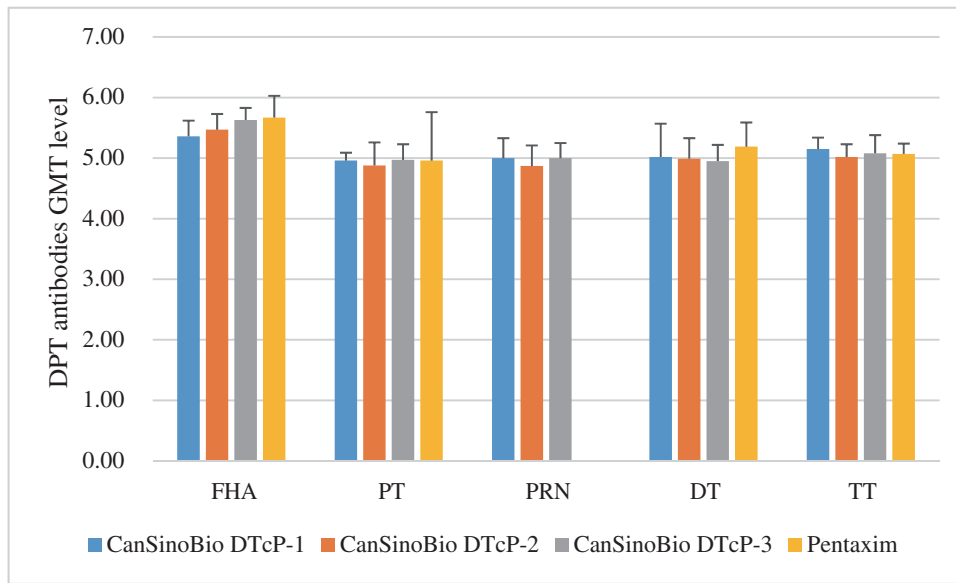
Source: Pre-clinical studies results summary

(1) The co-purified DTaP vaccine is marketed by the Wuhan Institute, which accounted for the largest share of the co-purified DTaP vaccine market in the PRC in terms of 2017 sales.

- *Consistent immunogenicity.* Each antigen component in our DTcP Infant candidate is separately purified and then combined together in a fixed and well-defined composition, which translates to more consistent immunogenicity.
- *Less safety concerns.* We use animal-free culture media as compared to co-purified DTaP vaccines that use bovine or porcine products. Animal-free culture media has a lower risk of introduction of infectious agents versus animal-based culture media.
- *Effective booster vaccination.* We are developing two DTcP booster vaccine candidates for use after primary vaccination with our DTcP Infant candidate to provide long-lasting immunity protection. For more details, see “– Our Vaccine Pipeline – DTcP Vaccine Candidates – DTcP Booster Candidate – Clinical Trial Stage” and “– Our Vaccine Pipeline – DTcP Vaccine Candidates – Tdcp Adolescent and Adult – CTA-ready.”

### *Competition*

Pentaxim marketed by Sanofi Pasteur is the only available DTcP vaccine in China. Pentaxim is a combination vaccine with DTcP, IPV and Hib, and is approved for the age group below 2 years old. Unlike our DTcP Infant candidate, Pentaxim does not have the PRN component pertussis antigen, which can elicit immune responses to suppress adhesion of the pertussis bacteria in the upper respiratory tract, and therefore translates to lower protection according to publish studies. The following diagram illustrates the antibody GMT levels induced by our DTcP Infant candidate and Pentaxim in our pre-clinical studies:



*Source: Pre-clinical studies results summary*

Pre-clinical studies show that, as compared with Pentaxim, our DTcP Infant candidate demonstrated significantly stronger immunogenicity against PRN and comparable immunogenicity against FHA, PT, DT and TT, indicating overall better protection for preventing pertussis and comparable protection against diphtheria and tetanus. In addition, Pentaxim does not have a booster schedule after primary vaccination in China.

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We are one of the only two companies in China with a DTcP vaccine candidate for infants that have received CTA approval. The following table sets out details of the CTA-approved DTcP vaccine candidates in China:

Developer	Stage of development	Approved time	Culture media formulation	Age indication	Booster schedule
CanSinoBio	CTA-approved and at clinical trial stage	January 2018	Animal-free	3 months to 2 years old	Booster vaccination for children between 4 to 6 years old, and booster vaccination for adolescents and adults
Beijing Bio-Institute Biological Products Co., Ltd.	CTA-approved	December 2016	Unknown	3 months to 2 years old	Unknown

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*Source: NIFDC, CIC Report*

Pertussis antigen production is a significant issue for all DTP vaccines. The normal expression of PT and PRN can only reach 3 mg/l to 15 mg/l, while DT and TT are expressed at 100 mg/l to 500 mg/l. The pertussis strains currently used in competing DTP vaccines and vaccine candidates in China have very low expression of antigens, therefore it is difficult to produce these antigens at a purity level of over 95% using these strains. We have developed three proprietary pertussis strains and designed a manufacturing process to increase the production yield of PT and PRN. We hold a key patent for the manufacturing process of DTcP vaccines, which we believe will enable us to maintain our competitive advantage in manufacturing for the next 15 years. Although our DTcP Infant candidate is still at clinical trial stage, we have received approval for clinical and commercial manufacturing using our genetically-engineered proprietary pertussis strains, which we believe demonstrates our research and development capability.

### *Material Communications and Next Steps*

We received the CTA approval for our DTcP Infant candidate in January 2018. We have commenced a phase I clinical trial in China and expect to conduct further clinical trials in China. Considering that we have obtained umbrella CTA approval for this candidate and based on our experience with the clinical trials for our MCV candidates, which also received umbrella CTA approvals, we expect to complete all of the clinical trials for our DTcP Infant candidate by 2020. To date, the NMPA has not raised any objections or material concerns with respect to our DTcP Infant candidate.

***DTcP Booster Candidate – Clinical Trial Stage***

There are no DTP booster vaccines for children in China. Our DTcP Booster candidate is a potential China first-in-class DTcP booster vaccine for children, which is designed to have the same composition as our DTcP Infant candidate and therefore has the same safety, immunogenicity and manufacturing productivity profiles. For details, see “– Our Vaccine Pipeline – DTcP Vaccine Candidates – DTcP Infant Candidate – Clinical Trial Stage.”

***Competition***

We are one of the only two companies developing a DTcP booster vaccine candidate in China. The following table compares our DTcP Booster candidate with the competitor candidate in China:

<b>Developer</b>	<b>Stage of development</b>	<b>Start of current stage</b>	<b>Age indication</b>
CanSinoBio	Phase I	January 2018	4 to 6 years old
Sanofi Pasteur	Phase III	November 2013	4 to 65 years old

*Source: CIC Report*

Currently, only one DTcP vaccine, Sanofi Pasteur’s DTcP booster vaccine for the age group of 4 to 65 years old, is in phase III clinical trial stage in China. However, it has been in phase III clinical trial stage since November 2013.

***Material Communications and Next Steps***

We received CTA approval for our DTcP Booster candidate in January 2018. We have commenced a phase I clinical trial in China and expect to conduct further clinical trials in China. Considering that we have obtained umbrella CTA approval for this candidate and based on our experience with the clinical trials for our MCV candidates, which also received umbrella CTA approvals, we expect to complete all of the clinical trials for our DTcP Booster candidate by 2020. To date, the NMPA has not raised any objections or material concerns with respect to our DTcP Booster candidate.

***Tdcp Adolescent and Adult – CTA-ready***

DTP booster vaccines for adolescents and adults are in the routine vaccination schedule of developed countries. However, there are no approved DTP booster vaccines for adolescents and adults in China. Moreover, EU countries have also reported a shortage of such vaccines in recent years. Our Tdcp Adolescent and Adult candidate is a potential global best-in-class vaccine developed to compete against world-class vaccines such as Boostrix and Adacel. As compared with the composition of our DTcP Infant candidate, our Tdcp Adolescent and Adult candidate contains a slightly higher amount of the TT antigen, and reduced amounts of pertussis antigens (FHA, PT and PRN) and the DT antigen in line with international industry standards.

### *Pre-clinical Studies*

*Acute toxicity test.* The maximum tolerated dose of our Tdcp Adolescent and Adult in mice is higher than 1 dose. Mice were injected intramuscularly with a single-dose of our Tdcp Adolescent and Adult, no toxic reactions were observed, indicating no acute toxicity in mice subjects.

*Repeated intramuscular injection toxicity test.* The safe dose amount of our Tdcp Adolescent and Adult in rats is three doses (1.5 ml in total). Rats were assigned to two groups, one low dose group (one dose each time), and one high dose group (three doses each time). Each group received one intramuscular injection each three weeks consecutively for five times, no systematic toxic reactions were observed, indicating no systematic toxicity in rats.

Pre-clinical studies of our Tdcp Adolescent and Adult showed good safety without adverse reactions in animals.

### *Competition*

There are no DTP booster vaccines for adolescents and adults in China. The only competitor is the DTcP vaccine candidate developed by Sanofi Pasteur. For details, see “– Our Vaccine Pipeline – DTcP Vaccine Candidates – DTcP Booster Candidate – Clinical Trial Stage – Competition.”

In EU countries, our Tdcp Adolescent and Adult candidate is expected to primarily compete with Boostrix marketed by GSK and Adacel marketed by Sanofi Pasteur. The following table sets forth the composition of pertussis antigens of Boostrix, Adacel and our Tdcp Adolescent and Adult.

	<b>BOOSTRIX (GSK)</b>	<b>ADACEL® (Sanofi)</b>	<b>Tdcp Adolescent and Adult (CanSinoBio)</b>
	<i>Antigen amount (0.5ml/per dose)</i>		
PT	8µg	2.5µg	8µg
FHA	8µg	5µg	8µg
PRN	2.5µg	3µg	3µg
FIM (including FIM II and FIM III)	–	5µg	5µg

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*Source: CIC Report*

Compared with Boostrix, our Tdcp Adolescent and Adult candidate contains two additional component pertussis antigens, FIM II and FIM III, which have been shown to play an important role in bacteria attachment and therefore the addition of such antigens potentially translates to better protection, according to published studies. Compared with Adacel, we have increased the antigen amounts of DT, PT and FHA, which translates to a stronger immune response.

We use our proprietary high-yielding pertussis strains for production of the Tdcp Adolescent and Adult vaccine candidate, so we are able to achieve competitive production yield compared to Boostrix and Adacel.

### *Material Communications and Next Steps*

The CTA for our Tdcp Adolescent and Adult candidate was accepted by the CFDA in August 2016. However, as this was a new vaccine in China, the Pharmacopoeia of China did not provide specifications and standards for such vaccine, and we did not reach an agreement with the CFDA on the selection of potency standards. In January 2018, we submitted a request to withdraw our CTA to the CFDA, which was accepted in February 2018.

There are well-established potency standards for Tdcp vaccines in the EU. As such, we requested a pre-CTA meeting with the FAMHP in December 2018 together with a briefing package including pre-clinical studies and clinical development plans for inspection. The pre-CTA meeting is scheduled for February 2019. We plan to file a CTA for our Tdcp Adolescent and Adult candidate in Belgium (as the reference member state in the EU) in 2019. We plan to commence phase I clinical trials in the EU in 2019. It is expected that the NMPA will finalize the potency specification for Tdcp vaccines with reference to standards in major developed countries. We plan to file a CTA in China by the end of 2020.

### **Pneumococcal Vaccine Candidates**

Pneumococcal diseases caused by *Streptococcus pneumoniae* are common causes of morbidity and mortality worldwide. Pneumococcal diseases can be divided into invasive pneumococcal diseases (mainly including bacteremia and meningitis) and non-invasive pneumococcal diseases (mainly community-acquired pneumonia and otitis media). The highest incidence of pneumococcal diseases occurs in the youth and the elderly. Currently, PPV23 products are the primary pneumococcal vaccines in China, which cannot be used in children under 2 years old and cannot elicit effective protection in the elderly. Prevnar 13, the global blockbuster PCV13 product, received approval in China in 2016 and is used for infants in China, accounted for 33.0% of the market share in 2017. Both PPV23 and PCV13 products cover the prevalent serotypes out of over 90 serotypes of *Streptococcus pneumoniae*.

We are developing a globally innovative PBPV candidate and an improved PCV13 candidate. Our PBPV candidate will initially target non-invasive pneumococcal diseases among the elderly above 65 years old, and the improved PCV13 candidate will initially target children against invasive pneumococcal diseases.

***PBPV – CTA-approved***

PBPV is a globally innovative pneumococcal vaccine candidate. Currently, PPV23 products and PCV13 products are all serotype-based and therefore are effective against only up to 23 pneumococcal serotypes but not able to protect against all of the 90 plus serotypes. Our PBPV candidate is not serotype-dependent. Our PBPV candidate adopts antigens that are based on the pneumococcal surface protein A, or PspA, a highly-conserved protein which is expressed by virtually all pneumococci. The results from a large global study showed that over 99% of the clinical isolates from 7 different countries are classified as PspA family 1 or family 2 strains. Our in-house study also demonstrated that approximately 98% of the strains isolated in the city of Nanjing belong to PspA families 1 or 2. Therefore, our PBPV candidate has the potential to have a much broader coverage in the elderly than that offered by the current PPV23 and PCV13 products.

There are three PspA families, which can be further divided into 6 clades. PspA family 1 contains clades 1 and 2, family 2 contains clades 3, 4 and 5, and family 3 contains clade 6. There are three PspA proteins in our PBPV candidate, which are PspA-RX1 (family 1, clade 2), PspA-5668 (family 2, clade 4) and PspA-3296 (family 2, clade 3). According to published studies and our pre-clinical studies, that a PspA protein can provide effective protection against strains from the same family, as well as effective cross protection against strains from other families or clades. The following table illustrates the PspA clades coverage of our PBPV candidate.

PspA families	PspA clades	CanSinoBio PBPV	
		Direct coverage	Indirect coverage through cross-reactivity
Family 1	1 and 2	2 (PspA-RX1) <sup>(1)</sup>	1
Family 2	3, 4 and 5	3 (PspA-3296) <sup>(2)</sup> 4 (PspA-5668) <sup>(3)</sup>	5
Family 3	6	N/A <sup>(4)</sup>	N/A

*Source: Immunization of healthy adults with a single recombinant pneumococcal surface protein A (PspA) variant stimulates broadly cross-reactive antibodies to heterologous PspA molecules (2000)*

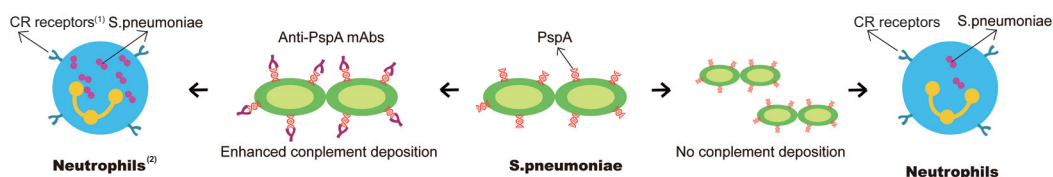
- (1) PspA-RX1 is the protein from clade 2.
- (2) PspA-3296 is the protein from clade 3.
- (3) PspA-5668 is the protein from clade 4.
- (4) According to published studies, clade 6 strains are rarely detected in China.

In addition, we have added a pneumolysin (Ply) toxoid (Ply-L460D) into our PBPV candidate formulation. The pre-clinical results have shown Ply-L460D to be protective against major virulent strains of *S. pneumonia*. According to studies, Ply-L460D can further enhance the immune protection offered by PspA proteins against multiple stages of pneumococcal infection.



### *Mechanism of Action*

The complement system is an important part of the innate immune defense. Complement components are heat-labile components of the normal plasma that augments the opsonization of bacteria by antibodies and allows macrophages to kill bacteria. The deposition of the complement components on the surface of pneumococcus is facilitated by the absence of PspA or by the addition of anti-PspA antibodies, which results in the faster clearance of pneumococci by phagocytic cells. Our PBPV candidate elicits anti-PspA antibodies through PspA-based antigens. The inclusion of three PspA antigens in our PBPV candidate's formulation will ensure a broad coverage through direct and cross protection.



- (1) CR receptors refer to complement receptors that bind to proteins of the complement system, and can thus detect pathogens without mediation by antibodies. CR receptors can be found in phagocytic cells.
- (2) Neutrophils are a type of white blood cells.

### *Limitations of Current Vaccines*

The current world-class pneumococcal vaccines are PCV13 products. Although Prevnar 13 is currently only approved and used for infants in China, it is also used in developed countries for adults, including the elderly. PCV13 products have the following limitations:

- *Limitation on serotype coverage.* PCV13 products, such as Prevnar 13, do not protect against all 90 plus pneumococcal serotypes. Despite the clear overall benefits of PCVs, studies have shown that there is an increase in incidence of pneumococcal diseases caused by non-vaccine serotypes due to serotype emergence or replacement, which indicates that the protection offered by PCV13 products is becoming increasingly insufficient.
- *Technical challenges to conjugation of additional serotypes.* PCV13 products conjugate 13 polysaccharides to a carrier protein, which already creates a relatively complex vaccine. It is believed that the limited choice in carrier proteins restricts the development of PCV products with additional polysaccharides. Moreover, there is also a limitation on the total amount of carrier proteins which can be used in a vaccine. As a result, conjugation of additional serotypes is technically challenging.

The pneumococcal vaccines currently available in China for the elderly are all PPV23 products. As polysaccharide vaccines, PPV23 products do not produce immunologic memory and the antibodies stimulated by the vaccines do not possess a high affinity for antigens. As a result, PPV23 products provide weak protection for the elderly over 65 years old. In addition, PPV23 products only cover 23 serotypes, and therefore are also subject to limitations on serotype coverage.

### *Advantages of Our PBPV Candidate*

Our PBPV candidate addresses the limitations of PCV13 and PPV23 products in the following ways:

- *Broader coverage.* According to studies, our PBPV candidate covers at least 98% of the pneumococcal strains.
- *Effective protection against non-invasive pneumococcal diseases.* Our PBPV candidate primarily protects individuals against non-invasive pneumococcal diseases, including community-acquired pneumonia and otitis media.

### *Pre-clinical Studies*

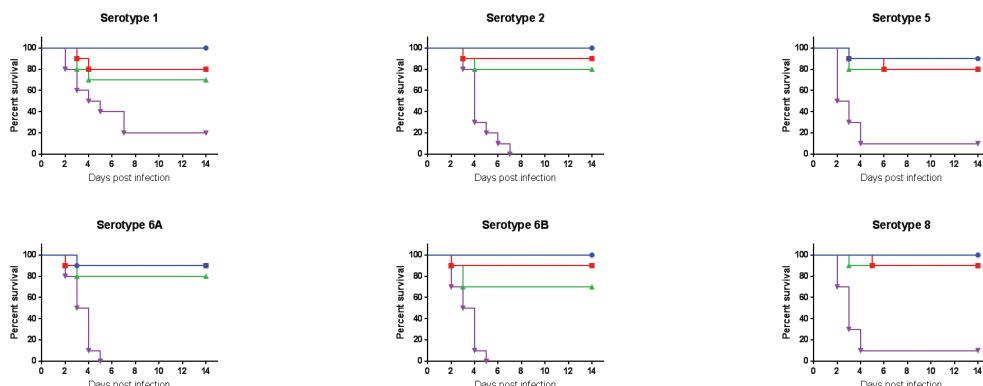
#### Safety

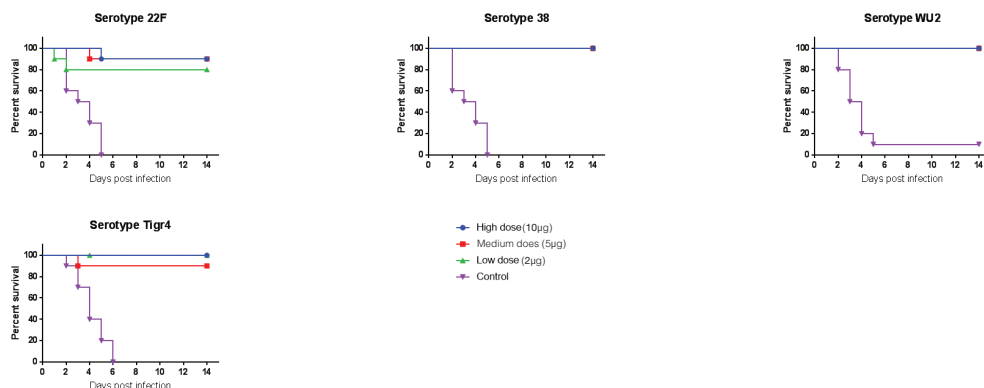
*Acute toxicity test.* The maximum tolerated dose of our PBPV candidate in mice is higher than 1 dose (50µg/0.5 ml), which is equivalent to the designed single clinical dose for humans. Mice were injected intramuscularly with a single-dose of our PBPV candidate, no obvious toxic reactions were observed after 14 days, indicating no acute toxicity in mice subjects.

*Repeated intramuscular injection toxicity test.* The safe dose of our PBPV candidate in cynomolgus monkeys is five doses (2.5 ml in total), which is equivalent to five times of the designed human single clinical dose. After repeated intramuscular injections, four times with five doses per time (every three weeks), no systematic toxic reactions were observed, indicating no systematic toxicity in cynomolgus monkeys.

#### Efficacy

Our PBPV candidate was subcutaneously injected in mice in three study groups, including one 10µg/time group, one 5µg/time group, and one 1µg/time group, with 10 mice in each group. There was a control group of 10 mice that received mock treatment. 42 days after vaccination, these four groups were challenged with strains from 10 clinical isolates of pneumonia diseases (serotypes 1, WU2, 5, 6A, 6B, 8, 22F, 38, 2 and Tigr4). The following charts set out the survival rates observed within 14 days after challenge.





*Source: Pre-clinical studies results summary.*

Our pre-clinical study results showed that approximately 80% to 100% of subjects in the control group died within 14 days after challenge, while 90% to 100% of subjects in the high dose group survived, 80% to 100% of subjects in the medium dose group survived, and 70% to 100% of subjects in the low dose group survived. Such results indicated a good immunogenicity in mice subjects.

## Conclusion

Pre-clinical studies of our PBPV candidate showed good immunogenicity and safety without adverse reactions in animals, which meant the PBPV candidate was ready for clinical trials.

## *Competition*

Our PBPV candidate is being developed as a globally innovative pneumococcal vaccine. Other companies, including GSK and Sanofi Pasteur, are also developing novel vaccines against pneumococcus that are not serotype-dependent, but none of them have been approved.

## *Material Communications and Next Steps*

The CTA for our PBPV candidate was approved in October 2018. We plan to initiate a phase I clinical trial for our PBPV candidate in adults in 2019. We expect to complete a phase I clinical trial and a phase III clinical trial in 2019 and 2022, respectively.

## ***PCV13i – CTA-filed***

We are developing a potential best-in-class improved PCV13 candidate, or PCV13i, which is designed to compete with Prevnar 13 for children under 2 years old. Prevnar 13 is a world-class standard PCV13 product and a blockbuster vaccine. We have made improvements in the conjugate design and manufacturing processes of our PCV13 candidate based on our proprietary conjugate vaccine manufacturing know-how.

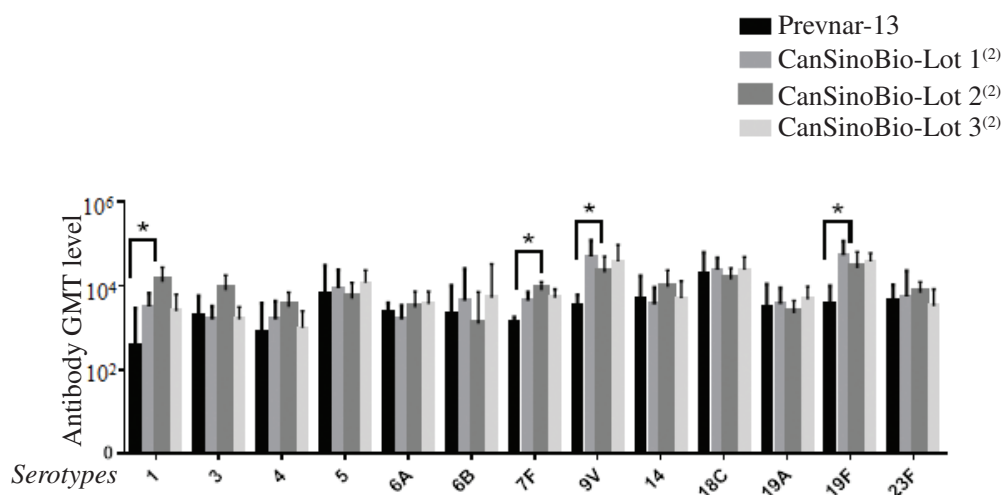
### *Mechanism of Action*

Our PCV13i candidate is developed using our conjugation platform technology. It conjugates 13 polysaccharides against 13 serotypes of pneumococcal bacteria to carrier proteins CRM197 and TT to produce an immune response against invasive pneumococcal diseases. The underlying conjugate mechanism is the same as that of our MCV candidates. For details, see “– Our Vaccine Pipeline – MCV Candidates – Near-commercial Vaccine Candidates – Mechanism of Action.”

### *Pre-clinical Studies*

#### Immunogenicity

In the immunogenicity test, the GMT levels of antibodies against four out of 13 serotypes (serotype 1, serotype 7F, serotype 9V and serotype 19F) were substantially higher than that of Prevnar 13, and the GMT levels of antibodies of the other nine serotypes were comparable to that of Prevnar 13. The following chart illustrates the better immunogenicity of our PCV13i candidate compared to Prevnar 13 in pre-clinical studies.



Source: Pre-clinical studies results summary

- (1) Serotypes 1, 3, 4, 5, 6A, 6B, 7F, 9V, 14, 18C, 19A, 19F and 23 F are the 13 serotypes covered by PCV13 products.
- (2) Lot 1, lot 2 and lot 3 are three lots used in pre-clinical studies to compare with Prevnar 13.

#### Conclusion

Pre-clinical studies of our PCV13i candidate showed good immunogenicity in animals.

### *Competition*

Our PCV13i candidate is expected to compete with Prevnar 13. As compared with Prevnar 13, we have implemented the following key improvements in the conjugate design and manufacturing processes of PCV13i candidate. Compared with carrier proteins DT and TT, CRM197 is non-toxic and therefore lowers safety concerns. However, according to studies, usage of a large amount of carrier proteins may suppress immunogenicity of conjugates, but the combined usage of two carrier proteins can mitigate such suppression. Therefore, we have adopted a second carrier protein, TT, to minimize the suppression effect of just using CRM197 alone. According to pre-clinical studies, our PCV13i candidate demonstrated a better immunogenicity compared with Prevnar 13 with four serotypes eliciting higher GMT levels and the other nine serotypes eliciting comparable GMT levels. We believe this is attributable to our manufacturing improvements.

In addition to Prevnar 13, we also expect to compete with other current major PCV13 candidates. The following table illustrates the current primary PCV13 candidates in China.

<b>Developer</b>	<b>Stage of development</b>	<b>Carrier protein</b>
Walvax	NDA-filed	TT
Minhai	Phase III	DT, TT
Lanzhou Institute of Biological Products Co.,Ltd.	Phase II	TT
Sinovac	Phase I	CRM197
Chengdu Antejin Biotechnology Co., Ltd	CTA-approved	Unknown
CanSinoBio	CTA-filed	CRM197, TT

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*Source: NIFDC, CIC Report*

(1) Sinovac's phase I PCV13 candidate is developed by using our out-licensed PCV technologies.

Among all the primary PCV13 candidates, we are the only one using a combination of CRM197 and TT as carrier proteins. CRM197 is non-toxic and therefore better than using toxin-based DT alone.

### *Material Communications and Next Steps*

We made a request with the CFDA for a pre-CTA meeting, in response to which the CFDA requested for submission of an information package. We submitted the relevant information package in July 2018, and filed the CTA in December 2018.

Because PCV13i leverages the proven technology of PCV13 (as applied in the PCV13 that we licensed out to Sinovac, a phase I clinical stage candidate in China) and considering our extensive preparation and recently introduced regulations in July 2018 to shorten the CTA review process, we expect to commence clinical trials for our PCV13i candidate shortly after the 60-day review process. Accordingly, we expect to complete the phase I clinical trial in 2019, phase III clinical trial in 2022 and receive NDA in 2024.

### Pre-clinical Programs with Proof of Concept

We have six vaccine candidates in pre-clinical programs, including one combination vaccine candidate and five other disease-specific vaccine candidates targeting shingles, meningitis, polio, adenovirus and Zika. In particular,

- *Shingles vaccine.* Shingles, also known as herpes zoster, has a high incidence rate among the elderly, according to the CIC Report. It causes significant pain in patients, and therefore leads to high healthcare expenditure. We will seek to leverage our viral vector platform technology to develop a new generation shingles vaccine with significant better efficacy than the current primary vaccines.
- *Meningitis B vaccine.* Current conjugate vaccines protect against serogroups A, C, W135 and Y, which are the most frequent causes of the disease in China, but not serogroup B. Serogroup B *Neisseria meningitidis* has become a major emerging cause of meningitis since the development of conjugate vaccines, according to the CIC Report. We will seek to leverage our strengths in protein structure design to develop a meningitis B vaccine to address this emerging unmet medical need.
- *IPV.* The global effort to eradicate polio has contributed to a high demand for IPV, for which there is currently also a supply shortage, according to the CIC Report. The development of IPV will enable us to leverage our DTcP vaccine portfolio to form a combination vaccine, and compete with global blockbuster vaccines such as Pentacel and Infanrix.

### OUR LICENSING ARRANGEMENTS AND COLLABORATION

#### Licensing Agreements Relating to Our Key Products

##### *Exclusive License Agreement with McMaster University*

In July 2011, we entered into an exclusive licensing agreement with McMaster University (the “**McMaster Licensing Agreement**”). Under the McMaster Licensing Agreement, McMaster has granted us a world-wide, exclusive license to make, have made, use, offer to sell, sell, import, lease or otherwise dispose of the products in the tuberculosis field (the “**Licensed Products**”) based on technology information rights owned by McMaster University related to TB Booster and its phase I clinical trial, as well as a non-exclusive sub-license to relevant adenovirus patent rights licensed to McMaster University. We are responsible for using commercially reasonable efforts to design, develop and commercialize the Licensed Products.

Under the McMaster Licensing Agreement, McMaster University is entitled to receive milestone payments of up to CAD105,000, of which CAD65,000 has been paid by us as of the Latest Practicable Date. We have agreed to pay McMaster University a royalty in the low-single digits of the net sales on Licensed Products by us in any country, in which the patent rights and the technology information rights of the Ad5Ag85A Technology exist. Our

obligation to pay royalty will terminate on either the expiration date of eight years from the date of the first sale on a country-by-country basis in such country or the date when the agreement is terminated, whichever is earlier.

The McMaster Licensing Agreement will be terminated upon the latest of (a) a contract term of 20 years; or (b) the last to expire or become abandoned of any patent issued with respect to the Ad5Ag85A Technology; unless there is an earlier termination brought up by McMaster or us. We may voluntarily terminate with at least three months written notice in advance to McMaster University. McMaster University is entitled to terminate this agreement in the event of our failure to meet milestones, our bankruptcy or insolvency, third parties' claims, our ceasing to carry on business, our arrears of royalties and our sublicense in breach of agreement.

McMaster University will own and manage the prosecution of all patents related to the improvements of Ad5Ag85A Technology made by McMaster University, while we will be solely and exclusively entitled to any rights, including but not limited to patent rights or patent application rights, related to any improvements made by us. McMaster University will have right to use those improvements made by us for further academic, research and educational purposes only.

***Non-exclusive License Agreement with National Research Council of Canada***

In February 2014, we entered into a non-exclusive license agreement with National Research Council of Canada, or NRC (the “**License Agreement with NRC**”). Under the License Agreement with NRC, we are granted a worldwide non-exclusive license in the field of viral vector production to reproduce, make, use, sell and export any of our products resulting from using NRC Technology, know-how and other technical information related to 293SF-3F6 Cell Line Master Cell Bank (the “**NRC Technology**”), or engage contractors to reproduce or make any such products, or modify NRC Technology. NRC authorizes us, and we agree to take all reasonable opportunities to acknowledge NRC as the source of the NRC Technology.

Under the License Agreement with NRC, we paid NRC a one-off license fee in the low six figures in 2014 and there are no outstanding license fees payable under this agreement.

Unless terminated earlier, the Agreement with NRC is perpetual. The Agreement with NRC may be terminated (i) unilaterally by us until the end of the trial period with a written notice; (ii) by NRC, among others, when we become bankrupt, insolvent, or pass a resolution for winding up; and (iii) by either party for contractual defaults or breached.

In the event that NRC produces additions or changes to the NRC Technology, which cannot be used alone, such additions or changes will be a part of the licensed NRC Technology. In the event we produce additions or changes to the NRC Technology, which cannot be used alone, we are required to provide NRC all available technical information related to such additions or changes, and we are deemed to license NRC to use them for certain research and development and government purposes.

NRC is responsible to make reasonable efforts to obtain and maintain patents covering NRC Technology in countries it chooses at its own costs. We have the right to request NRC to obtain and maintain patents in countries it does not choose at our costs.

### *Non-exclusive Out-license Agreement with Sinovac*

In March 2009, November 2009, December 2011 and January 2015, we entered into a series of agreements with Sinovac with respect of PCV technologies (together, the “**Sinovac Licensing Agreement**”). Under the currently effective Sinovac Licensing Agreement, we have granted Sinovac a non-exclusive worldwide license to our PCV technology including the ones related to CRM197 carrier proteins, to develop, manufacture and commercialize PCV products. We out-licensed certain PCV technologies because at the early stages of our business, we strategically decided to focus our relatively limited resources on the development of other vaccine candidates in our pipeline, and the out-licensing arrangement would provide us with a steady sources of revenue through milestone and royalty payments that would supplement our working capital. Each party have the right to use the PCV technologies to develop its own PCV products or to sublicense to a domestic company to co-develop PCV products. Each party is responsible for research and development activities and filing process for its own PCV products. We do not believe that Sinovac’s PCV candidate would have a material and adverse effect on the demand for our PCV candidates, considering the significant PRC market for pneumococcal vaccines and the limitations of PPV23 products, which are the current primary pneumococcal vaccines in China. Moreover, our PCV13i candidate utilizes technologies upgraded from those out-licensed to Sinovac.

Under the Sinovac Licensing Agreement, we are entitled to receive milestone payments of up to US\$1.8 million from Sinovac, all of which have been fully paid to us before the Track Record Period. Sinovac has agreed to pay us royalties in the low-single digits of the net sales in any country or area of commercialized PCV products developed through any sub-license and collaboration development.

This Sinovac Licensing Agreement can be terminated at any time by mutual agreement. Each party is entitled to unilateral termination in advance if the other party commits breaches and frustrate the purpose of the Sinovac Licensing Agreement.

Under the Sinovac Licensing Agreement, each party owns the intellectual property rights with respect to any improvement of the PCV technology made on its own, and is entitled to the right of first refusal in any transfer and license of such improvements. Sinovac is entitled the right to reserve any document and information related to the PCV technologies delivered to it without any restrictions on future usage.



### **Collaboration Arrangements Relating to Our Non-Key Products**

#### ***Research Collaboration with the Institute of Biotechnology of Academy of Military Medical Sciences***

After the 2014 Ebola outbreak, we entered into a research and collaboration with the Institute of Biotechnology of Academy of Military Medical Sciences (“**BAMMS**”) for Ad5-EBOV. Under such collaboration arrangement, we cooperated with BAMMS in the evaluation of EBOV’s immunogenicity and safety, clinical trials, registration filings of Ad5-EBOV. We are responsible for products production. We and BAMMS have jointly received the NDA approval for Ad5-EBOV in China for emergency use and national stockpile. While we are subject to confidentiality obligations under the collaboration agreements, which restrict public disclosure of the terms of such agreements, our collaboration agreements are not marked with, have not been required to be marked with, and have not been determined to involve or potentially involve, state secrets by any relevant authorities. Considering the above, and based on relevant PRC laws, our PRC Legal Adviser is of the view that our collaboration agreements with BAMMS do not involve state secrets. Moreover, we have provided, and will be able to provide, the relevant professional parties access to our books and records and other information which they consider necessary for performance of their engagement in the preparation for, and after the Listing, and we will be able to provide regulators access to information they consider necessary for the performance of their regulatory functions.

#### ***Research Collaboration with Vaccitech Limited***

##### ***Master Collaboration Agreement***

On September 4, 2018, we entered into a master collaboration agreement with Vaccitech Limited (the “**Vaccitech Master Collaboration Agreement**”). Under the Vaccitech Master Collaboration Agreement, the parties may discuss the potential for collaboration relating to one or more programs. If the parties wish to undertake a project, the parties agree to use reasonable endeavors to complete and execute an agreement based upon an agreed form. Each such project agreement incorporates the terms of the Vaccitech Master Collaboration Agreement by reference.

For any product co-developed, each party is responsible to provide the other party all materials specified in each project agreement and agrees to grant to the other party a non-exclusive, non-transferable, non-sub-licensable, royalty-free license to use the relevant materials solely for the purpose of each project. Unless agreed otherwise, we have the rights to and are responsible for manufacture and supply of all master virus seed and GMP adenoviral material necessary for the development and sale of any products by either party in its respective territory. We agree to supply any such material to be used by Vaccitech Limited (“**Vaccitech**”) for the manufacture of products to be sold by Vaccitech (or its sub-licensees) in the Vaccitech’s territory at pricing of 15% to 30% over cost of goods sold, where the cost of goods sold is equal to the reasonable cost of goods sold for equivalent material manufactured by us or our subcontractors for sale by us (or our sub-licensees) in our territory. Our territory includes China (including Taiwan, Hong Kong and Macao), Malaysia, Thailand, Myanmar, Indonesia, Laos, Vietnam, and the Philippines. Vaccitech’s territory is defined as the rest of the world other than our territory.

The term of this Vaccitech Master Collaboration Agreement is ten years. The Vaccitech Master Collaboration Agreement can be terminated earlier if both parties agree. Either party can terminate by written notice if the other party commits a material breach and either the breach is not capable of being cured or the breach is capable of being cured and the other party fails to cure the breach within 30 days of being notified in writing.

Each party grants to the other party a royalty-free, non-exclusive license to use its relevant background intellectual property rights to the extent necessary to perform the project in the other party's territory, along with a right to sub-license to any agreed-upon subcontractor performing services for and on behalf of the other party. Except as agreed otherwise in a project agreement, any modifications, enhancements or improvements of a party's background intellectual properties and all associated intellectual property rights (the "**Improvements**") will be owned by the originating party, and will be treated as background intellectual property rights for the purposes of the license granted to the other party. Each party assigns to the other party any rights, title and interest it may have in the Improvements, so as to perfect the other party's ownership in the Improvements. Any new intellectual property right created, generated, developed, derived, conceived or first reduced to practice in the course of activities performed by a party in relation to a project or otherwise under this agreement or a project agreement, which is not derived from either party's background intellectual property rights or Improvements and all associated intellectual property rights, will be owned by the parties in shares to reflect the respective inventive contribution of each party to that new intellectual property right as determined by the principles of United Kingdom patent law (unless specified otherwise in the relevant project agreement).

### *ChAdOx Zoster Project Agreement under the Vaccitech Master Collaboration Agreement*

As a part of the Vaccitech Master Collaboration Agreement, on September 4, 2018, we entered into a project agreement with Vaccitech with a goal to develop a Zoster vaccine that can become a competitor to Shingrix (the "**ChAdOx Zoster Project Agreement**"). Under this ChAdOx Zoster Project Agreement, Vaccitech is responsible for funding and undertaking, among others, final construct design and build, head to head construct testing, preclinical comparison with Shingrix, stability assurance, pre-master virus seed manufacture and genetic stability assessment, master virus seed manufacturing, joint regulatory planning and setup for all activities related to manufacturing practice standards, and CTA filing with Medicines and Healthcare products Regulatory Agency in UK, and (subject to availability of funding) conducting a phase I clinical trial in UK. We are responsible for funding and undertaking, among others, master virus seed release testing, GMP stability testing, GLP toxicology studies, assay development, CTA filing with CFDA and conducting phase I clinical trial in China. As of the Latest Practicable Date, Vaccitech has completed six milestones. We have not yet reached any of our milestones. Phase II and III clinical trials are pending, subject to further negotiation.

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We have agreed to pay Vaccitech an upfront payment in the amount of £50,000. We have agreed to a milestone payment plan to Vaccitech based on successful conduct of clinical trials and commercialization of the product. We have agreed to pay Vaccitech royalties in the mid-single digit based on the net sales of the product in our territory, and we are entitled to receive from Vaccitech royalties in the low-single digit of the net sales of the product in Vaccitech territory. We have agreed to a reduction of the royalties where necessary for a license or freedom-to-operate on the product. The obligation of royalty payments will terminate upon patent expiry or ten years from first commercial sale of the product, whichever is later.

Vaccitech is entitled to receive a percentage of the transaction value in the mid-teens in the event we sublicense or sell the product rights to a third party other than our affiliates. The parties agree to contribute the key background intellectual property rights as specified in the ChAdOx Zoster Project Agreement. The parties anticipate that the performance of the project will provide the project results and new intellectual property rights specified in the ChAdOx Zoster Project Agreement, including products, non-clinical study data, clinical study data, manufacturing process potential new intellectual property rights and comprehensive regulatory package.

The parties use all reasonable endeavors to enter into a separate written supply agreement under which we agree to manufacture and supply all products necessary for this project and the exploitation of the products by the parties in accordance with the Vaccitech Master Collaboration Agreement and this ChAdOx Zoster Project Agreement. If the parties cannot agree upon such supply agreement, they must comply with the dispute resolution process set out in the Vaccitech Master Collaboration Agreement. For all ChAdOx Zoster products manufactured by us under a supply agreement for Vaccitech to sell in the Vaccitech's territory, Vaccitech agrees to pay charges to us calculated at the equivalent of the costs incurred by us to manufacture those products plus extra 20% of such costs.

## RESEARCH AND DEVELOPMENT

As a leading late-stage vaccine development company, we have built up strong research and development capabilities to identify and develop high-potential and high-quality vaccine candidates. Our R&D activities are led by a world-class scientific and management team with deep expertise from global pharmaceutical or biotech companies such as Sanofi Pasteur, AstraZeneca and Wyeth (now Pfizer). For more details, see “— Competitive Strengths — World-class scientific and management team from leading global biopharmaceutical companies.”

Our Founders have accumulated robust experience and technological know-how in vaccine development that have contributed to our development of four platform technologies. For example, our Founders' experience and technology related to the preparation of vaccines from pneumococcal surface protein PspA sequence-derived antigens have contributed to the development of our protein structure design and recombinant platform technology, our Founders' polysaccharide protein conjugation technology (including the manufacturing method for pneumococcal polysaccharide vaccines, which was injected into the Company by

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our Founders as capital contribution) has contributed to the development of our conjugation platform technology, and our Founders' experience and technology related to a new aluminum adjuvant has contributed to the development of our formulation technology. Our platform technologies cover key advanced technologies in vaccine development technologies, laying the foundation for our research and development and enabling us to develop vaccines in a cost effective manner. Moreover, our platform technologies complement each other and produce a synergistic effect for our research and development efforts. For example, our formulation technology supports all other platforms in terms of vaccine composition. These platform technologies have also enabled us to develop patentable technologies, many of which relate to and have evolved from our Founders' technologies. For details of our intellectual properties, including our patents and patent applications, see “– Intellectual Property” and “Appendix VII – Statutory and General Information – B. Further Information About Our Business – 2. Our Intellectual Property Rights.”

The following table sets forth the relationship between our platform technologies and our patents and patent applications.

Platform technologies	Patents/Patent applications		
	Patent/ Application number	Status	Description
Protein structure design and recombinant technology	201210259916.X	Granted	A method for producing acellular pertussis vaccine
	201510321238.9	Applied	Culture medium for preparing tetanus toxin and its application
	201110455047.3	Granted	Removal of human homologous sequence of pneumococcal surface protein A, and methods for purifying mutant protein and uses thereof
	201310211440.7	Granted	Modified pneumococcal surface protein A with human homologous sequence replaced, and methods for purifying mutant protein and uses thereof
	201410605626.5	Granted	Immunogenic composition for preventing streptococcus pneumoniae infectious diseases and preparation method thereof
	201410419379.X	Granted	Method for enhancing immunogenicity of epitope peptide of HPV antigen, virus-like particle, and method for preparing HPV vaccine

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Platform technologies	Patents/Patent applications		
	Patent/ Application number	Status	Description
Conjugation technology	201510354710.9	Granted	Multi-valent meningococcus kit, vaccine preparation and preparation method thereof
	201810693844.7	Applied	Composition of multi-valent pneumococcal conjugate vaccine and uses thereof
	201410114934.8	Granted	Pneumococcus polysaccharide protein conjugated vaccine and preparation method thereof
	201610879330.1	Applied	Protein carrier capable of enhancing immunogenicity of polysaccharide antigens, and its preparation and application
	201710469962.5	Applied	Mycobacterium tuberculosis Oligosaccharide (Os-tb) protein conjugate, and preparation methods and uses thereof
	201610788095.7	Applied	Mycobacterium tuberculosis Oligosaccharide (PGL-tb1) protein conjugate, and preparation methods and uses thereof
	201510638297.9	Applied	Haemophilus influenzae fusion protein and construction method and use thereof
Adenovirus-based viral vector vaccine technology	201610838392.8	Applied	C-Ps monoclonal antibody and its preparation and application
	201611100644.3	Applied	Freeze-drying additive for adenovirus and freeze-dried preparation of adenovirus
	201710778032.8	Applied	Methods for constructing cell lines to reduce production of replication competent adenoviruses and uses thereof
Formulation technology	Our formulation technology is broadly applicable to any products developed using this platform, and is related to a number of relevant patents and patent applications.		

**Research and Development Team and Activities*****In-house R&D Team and Activities***

Our in-house R&D team is involved in all stages of products development, from pre-clinical studies, laboratory research, to clinical trials, regulatory filings and process development. Our in-house R&D team is led by Dr. Zhu, our chief scientific officer and co-Founder. Dr. Zhu has significant experience of research and development in large and small biotechnology companies and has led various achievements in the vaccine field. For details, see “Directors, Supervisors and Senior Management.” Our in-house R&D team is further divided into a pre-clinical R&D team, and a medical/clinical team and a regulatory filing team. The pre-clinical R&D team is directly led by Dr. Shao Zhongqi and is primarily responsible for proof-of-concept pre-clinical evaluation, establishment of manufacturing processes and formulation, analysis and testing, and new technologies and projects initiation. There are eight divisions under the pre-clinical R&D team. The medical/clinical team and regulatory filing team are both led by Ms. Xu Lifeng, our vice president of regulatory and clinical affairs. Ms. Xu Lifeng has over 25 years of experience in the vaccine industry. The medical/clinical team is primarily responsible for clinical trial study design and management, including the selection of clinical trial sites. We select clinical trial sites based on a number of factors, including the suitability of facilities onsite for our clinical research needs, availability of qualified staff and availability of research subjects. The regulatory filing team is primarily responsible for the vaccine approval process and monitoring our research and development projects to ensure their compliance with relevant PRC regulations. As of the Latest Practicable Date, our in-house R&D team consisted of 112 employees, 69.6% of whom hold graduate or higher degrees, and 97.3% hold bachelor’s or higher degrees, mainly in biology, medicine and pharmacology.

For the years ended December 31, 2016, 2017 and 2018, our total research and development expenses amounted to RMB51.7 million, RMB68.1 million and RMB113.6 million, respectively. Up to December 31, 2018, we capitalized RMB31.6 million for the clinical trial expenses for our MCV candidates. See “Financial Information” for details. We expect that our research and development expenses to increase generally in line with the advancement of our vaccine development programs in the future.

***Outsourced Research and Development Activities***

In line with industry practice, we outsource certain testing activities related to research and development to Independent Third Party CROs. These testing activities primarily include safety evaluation, compatibility studies on packaging materials, and tests such as antigen component quality or structure tests. In addition, we also engaged CROs to implement certain of our clinical trials. We closely monitor and manage the activities of these CROs to ensure their progress and quality, including (i) requiring CROs to conduct clinical trials in accordance with GCP requirements; (ii) conducting periodic review; and (iii) engaging third-parties to audit for CROs conducting clinical trials.

### Research Facilities

We have a research and development center with a gross floor area of approximately 12,000 m<sup>2</sup>. Our GMP pilot plants in our research and development center have passed EMA's QP inspection. We believe we are the only vaccine company in China that has passed such inspection. Our research and development center is equipped with research, process development and analytical laboratories and pre-clinical and clinical trials facilities, with advanced equipment and machinery, including fermentation equipment, machinery for filtering and concentrating, characterization and separation proteins, as well as equipment allowing us to work under sterile conditions.

### Recognitions and Grants

We have participated in or undertaken a number of government-sponsored pharmaceutical research and development projects, which demonstrate the recognition of our research and development capabilities. For example, our PBPV candidate and Ad5-EBOV projects were recognized as Major National Science and Technology Project for “Innovative Drug Development” (國家科技重大專項重大新藥創製專項立項). As a result, we received government grants in support of the clinical trials as well as development of manufacturing processes for these vaccine candidates in 2015 and 2016. Our scalable production of adenovirus vector vaccines for emergency use was recognized as Major National Science and Technology Project for “Special prevention and control of major infectious diseases such as AIDS and viral hepatitis” (國家科技重大專項艾滋病和病毒性肝炎等重大傳染病防治專項立項) in 2016. Our MCV4 was supported by “Major Science and Technology Special Project” of Tianjin Municipal Science and Technology Commission (天津市科學技術委員會科技重大專項與工程) in 2017. See “Financial Information — Description of Certain Consolidated Statements of Comprehensive Income Items — Other Income.”

### COMMERCIALIZATION

We have begun building our commercialization infrastructure with a primary focus in China's private vaccine market.

### Marketing Strategies

We have developed the following marketing strategies to explore, penetrate and develop the markets for our vaccine pipeline:

- *Focus on the private vaccine market.* The private vaccine market has less sales volume in terms of doses but higher value than the public vaccine market, and therefore has greater growth potential. We believe that our products will compete effectively as a result of their quality and innovation, and will be able to meet the needs of the private vaccine market.
- *Promotion of market and brand recognition.* We engage in physician-oriented marketing activities and attend academic symposia, during which our industry-leading experts and commercialization team members engage in information exchange and academic discussions with CDCs, physicians, KOLs and other



healthcare professionals in the vaccine or disease prevention industry, on the latest industry trends, research progress and advantages of our product. In addition, we plan to launch new vaccines to keep up with the R&D pace of developed countries, thus strengthening our brand recognition.

- *Pre-launch market research and analysis.* We plan to increase public awareness of the benefits of vaccination for different age groups by targeting parents of newborns and the elderly population as well as high-risk populations. We also plan to conduct our research and analysis to better understand our targeted markets and populations in order to formulate more effective sales and marketing strategies.

### **Sales Network**

#### ***Domestic Market***

We expect our commercialization activities to be primarily focused in China. According to applicable PRC laws and regulations, vaccines are required to be directly sold to CDCs in China. Therefore, CDCs are expected to be our primary customers. Vaccines in the public market are sold to provincial CDCs through a collective bidding process and distributed to the points of vaccination. Vaccines in the private market are qualified for purchase through a tender and bidding process administered by provincial CDCs. The qualified vaccines are then purchased by local CDCs and distributed to the points of vaccination.

We expect to establish an in-house commercialization team in up to approximately 30 economically-developed cities nationwide, and gradually penetrate lower tier cities. The primary responsibilities of the commercialization team are (i) establishing and supporting our sales force; and (ii) developing and undertaking commercialization initiatives. Mr. Zhao Guojun, our vice president with over 30 years of sales and managerial experience in China's largest state-owned biopharmaceutical group, leads our sales and commercialization efforts. Mr. Wu Yonghui, our vice president with approximately 15 years of experience in sales and marketing areas at both multi-national and domestic pharmaceutical and vaccine companies, oversees our marketing activities. We plan to expand our in-house commercialization team to reach approximately 100 members by the end of 2019 and approximately 370 to 380 members by the end of 2022 based on our current plans with respect to clinical trials and product commercialization. Meanwhile, we plan to establish a network of local business partners to increase awareness of the benefits of vaccination as well as promote our products in lower-tier cities that we cannot cover in the short term.

We plan to establish a network of efficient cold-chain logistics providers, primarily consisting of storage, warehousing, and long-distance, regional and local transportation and delivery services, to ensure that our vaccine deliveries meet the temperature and other requirements of relevant laws and regulations.

#### ***International Market***

We are also committed to commercializing our vaccine candidates outside the PRC. For example, we have submitted "Abbreviated Product Summary File for WHO Emergency Assessment" to the WHO for our Ad5-EBOV. We will also continue our discussions with authorities in other nations and other international agencies such as GAVI, to explore stockpile opportunities.



In addition, our vaccine candidates have a competitive strength in Islamic countries and India because of their having an animal-free formulation. In April 2018, we entered into an exclusive export agency agreement with Shenzhen Mellow Hope Pharm Industrial Co., Ltd. (“**Shenzhen Mellow Hope**”), an Independent Third Party. Shenzhen Mellow Hope is a PRC domestic company with over 10 years of experience in providing comprehensive services including research, registration, export and sales services for vaccines and other biologics products. It has presence in over 30 countries and has served a number of well-recognized domestic pharmaceutical companies. Under the exclusive export agency agreement, Shenzhen Mellow Hope is appointed to be our sole agent with an exclusive right to register, promote, sell, distribute and retail our MCV4 products in India. We have designated Shenzhen Mellow Hope as our sole agent to engage a local third party to apply for product registration and approval. Shenzhen Mellow Hope is obliged to provide the product registration plan and, if required, clinical trial plans to us for approval and is responsible for all fees related to product registration and approval. All of the intellectual property rights to support the product registration and approval process belong to us. Shenzhen Mellow Hope is responsible for preparing promotional and marketing materials and all such materials shall be reviewed and approved by us in advance. After the products are approved, it is responsible for placing orders with us and entering into agreements with distributors in India. Shenzhen Mellow Hope is required to provide prepayment to us after we confirm the orders, and its payment to us for any purchases is not subject to any payment due from the distributors in India. The agreement has a term of five years and is automatically extended to another five years from the date of obtaining the approval for commercialization in India. If our MCV4 products do not receive the registration approval in India within three years after April 2018, either party is entitled to terminate this agreement. We also plan to penetrate the markets of Islamic countries, such as Middle Eastern countries, in a similar manner.

In the second half of 2018, we generated income from sales of vaccine components to VaxYnethic S.r.l. (“**VaxYnethic**”), an Italian vaccine manufacturer, and entered into a vaccine components supply agreement with VaxYnethic, under which we expect to continue to generate income in the future. Pursuant to this agreement, we have agreed to manufacture and provide certain critical vaccine components, such as polysaccharides and a carrier protein, to VaxYnethic, which will use these components in the development of its technology platform for the manufacture of various vaccine products. We believe that this collaboration will pave the way for our strategic business development in the European and other worldwide markets. Under the terms of this agreement, the vaccine manufacturer will send us quarterly forecasts of their purchases. The forecasted quantities for the first and second quarters of each quarterly forecast are binding. The agreement will remain effective until notified by VaxYnethic that they have ceased development of products containing the vaccine components we supply or notified by VaxYnethic with a six month prior written notice to us. In addition, either we or VaxYnethic may terminate the agreement in the event of a material breach and such breach is not cured by the breaching party within 30 days after receiving written notice of such breach.

### **Pricing Policy**

We will determine the prices of our products based on a number of factors, including product quality, competitive market position and affordability. We will price our products after obtaining NDA approvals. Products that are expected to compete in the public market will be priced based on current vaccines that are already in the public market, our costs of production,

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and price quotations of competing products in the bidding process. Most of our products will be vaccines in the private market, the pricing of which will be determined based on a number of factors, including our costs of production, price quotations of competing products in the bidding process, our vaccine technology advantages, product quality market trends, and changes in the levels of supply and demand.

### Customers

We did not have any customers in 2016 and 2017. In 2018, we generated revenue of RMB1.1 million from providing research and development services to an Independent Third Party to filter and validate certain antibodies through our advanced vaccine R&D platform technologies. See “Financial Information – Description of Certain Consolidated Statements of Comprehensive Income Items – Revenue.”

### MANUFACTURING

As of the Latest Practicable Date, we had 87 employees responsible for manufacturing and is led by our vice president, Mr. Lie Sheng Chen. Mr. Chen has approximately 20 years of extensive experience in manufacturing management of vaccine products. Our manufacturing team is divided into bulk production, final products production, auxiliary production, production technology and manufacturing process.

#### Our Manufacturing Facility

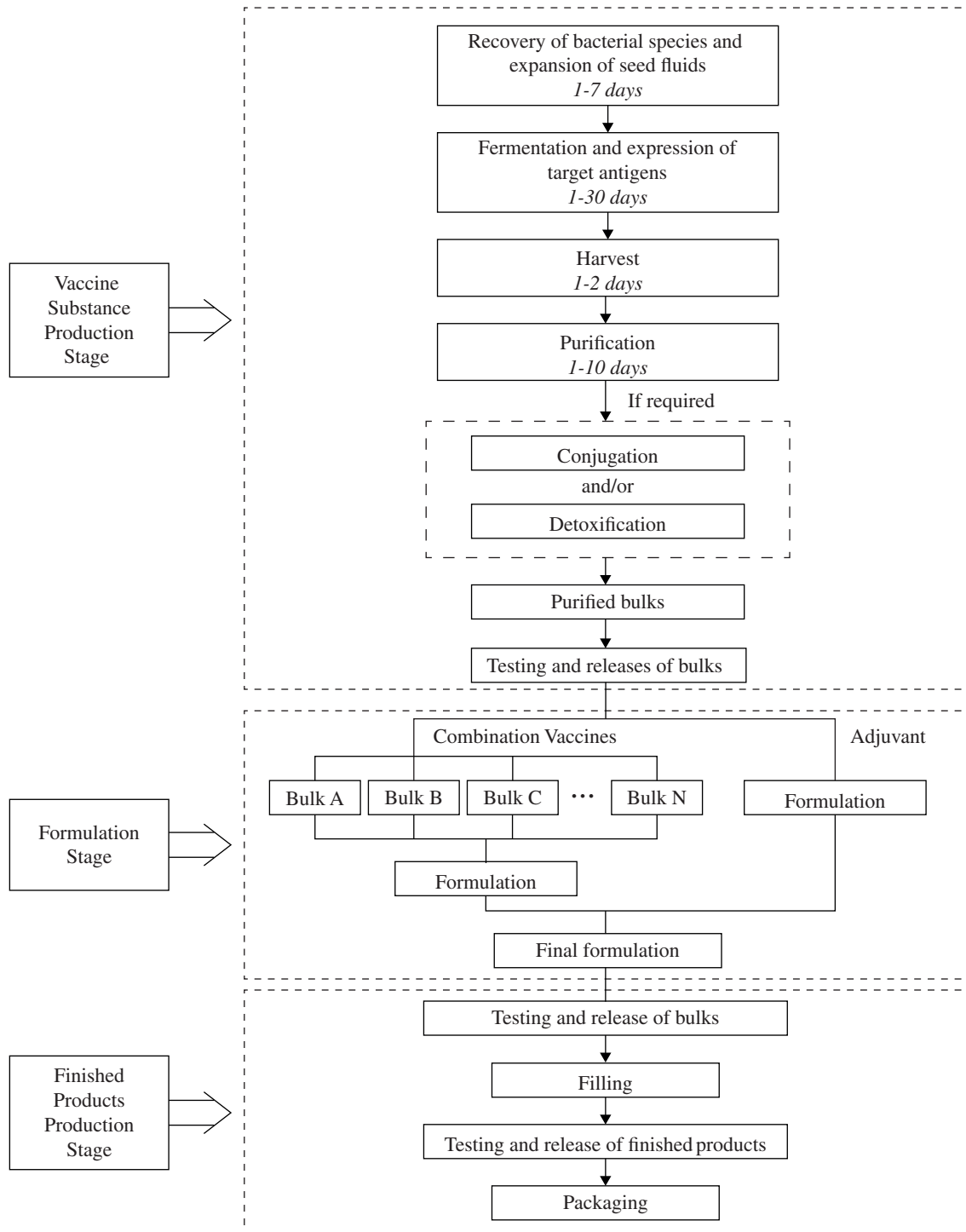
To date, our manufacturing activities have been primarily limited to those for product registration purposes. We own and operate a commercial-scale manufacturing facility located in Tianjin city currently with a total gross floor area of approximately 37,000 m<sup>2</sup>. The facility is designed, constructed and operated to meet international standards. Our manufacturing facility has an annual bulk production capacity of approximately 70 million to 80 million doses, which is higher than the average production capacity at 30 million to 50 million doses of the top five largest domestic privately-owned vaccine companies in China in terms of sales revenue, according to the CIC Report. We believe our current production capacity will be fully capable of supporting our commercialization plans for our near-commercial candidates as well as supporting manufacturing of clinical trial materials in the foreseeable future.

Our manufacturing facility is equipped with advanced equipment and machinery include fermentation, purification, conjugation, and ultrafiltration, auto-packaging and filling machinery. Many of our major manufacturing equipment are manufactured by leading international and domestic brands. For details of the useful life and depreciation rate of our manufacturing facility and equipment and instruments, see Note 2.5 of the Accountant’s Report set out in Appendix I to this Prospectus.

CFDA has carried out manufacturing and GMP inspections at our manufacturing facility. We are currently conducting validation of our manufacturing facilities and processes. We expect to pass pre-approval inspection for licensure for our MCV2 and MCV4 candidates by the end of 2019 and first half of 2020, respectively.

## Manufacturing Process

The following diagram summarizes the key steps in our manufacturing process.



The following is a brief description of the key steps in our manufacturing process.

- *Recovery of bacterial species and expansion of seed fluids.* We produce or source strains for vaccine production. All such strains are self-developed or sourced from NIFDC, and have been sent to the NIFDC for review and verification. We have established a three-level seed bank in accordance with National Pharmacopoeia and applicable laws and regulations.
- *Fermentation and expression of target antigens.* We generally cultivate our viral vaccines (including viral vector vaccines), such as Ad5-EBOV and TB Booster candidate, through fermentation method and cell factory method. Fermentation cultivation method is used to produce target antigens of bacterial vaccines, such as our MCV candidates, PCV13i candidate, PBPV candidate and DTcP candidates.
- *Harvest.* We harvest supernatant and bacteria after cultivation. A variety of solid-liquid separation methods are used in this step, such as centrifugation.
- *Purification.* We establish specific purification programs according to the nature of the antigen. The purity of all antigens must meet requirements under laws and regulations applicable to target markets.
- *Conjugation.* As for conjugate vaccines, such as MCV and PCV13i, we conjugate polysaccharides and carrier protein produced separately earlier in this step.
- *Detoxification.* As for DTcP vaccines, we conduct detoxification which is required in the antigen production process.
- *Testing and releases of bulks.* In this step, we conduct endotoxin safety test and sterility test on the bulks. If the testing and inspection results satisfy the quality requirement, we will release the bulks. Specific testing methods and standards are set up at every stage of production.
- *Formulation.* We formulate bulk into semi-finished products according to approved formula. For example, vaccine combination process combines different component bulks to achieve final concentrations equal to multiple components. In addition, adjuvants can be incorporated into the bulks.
- *Filling.* We fill the products by sub-packaging and lyophilisation. Specifically, vials and pre-filled syringes are used for liquid products, and
- *Testing and release of finished products.* We inspect each finished product according to the production process and pursuant to national and international Pharmacopoeias, including identification, physical appearance, chemical verification, sterility, potency and thermal stability. If the testing and inspection results satisfy the quality requirement, we will release the finished products.

**QUALITY MANAGEMENT**

As of the Latest Practicable Date, we had 68 employees responsible for quality management, and is led by our vice president, Ms. Xiaoman Dong. Ms. Dong has over 20 years of experience in international and domestic vaccine companies. Our quality management team is divided into quality assurance, quality control and validation teams. Our quality assurance team is responsible for establishing comprehensive quality policies, ensuring our compliance with global quality guidelines and maintaining all quality related documentation. Our quality control team is responsible for quality test, inspection and review for all our products and raw materials. Our validation team is responsible for quality inspection and validation of our machinery, facilities and manufacturing processes. We have a comprehensive quality management system with stringent policies relating to vaccine research, development and manufacturing. Moreover, our quality management system is designed to ensure that we are in compliance with GMP, Pharmacopoeia and labelling requirements and other applicable laws and regulations. Quality issues are documented, escalated to and reviewed by senior management. We also conduct a formal risk assessment and justification in accordance with the standards and procedures under our quality management system and policies.

**RAW MATERIALS**

Our manufacturing activities to date have been primarily limited to those for product registration purposes. The primary raw materials used to manufacture our vaccine candidates include culture media, supplemental materials such as mannitol, sucrose, inorganic salts and amino acids, and packaging materials. A majority of the raw materials are widely available, and we are able to purchase them from numerous suppliers across China. Certain critical raw materials, such as peptone and chromatograph resins, are available from a limited number of suppliers in China and overseas. We have maintained stable business relationships with a number of suppliers that can provide such raw materials with consistently high quality and in sufficient volumes. During the Track Record Period, we purchased raw materials based on the needs of our research and development and we did not experience any shortage of supply.

**SUPPLIERS**

During the Track Record Period, our major suppliers primarily consisted of suppliers of raw materials, machinery and equipment, and construction service providers. We have maintained stable business relationships with our major suppliers of approximately two years. Pursuant to our supplier agreements, we generally settle payments with major suppliers on a monthly basis or pursuant to a milestone payment schedule. These payments are settled through bank transfers. For the years ended December 31, 2016, 2017 and 2018, purchases from our five largest suppliers amounted to RMB85.3 million, RMB114.5 million and RMB78.1 million, respectively, accounting for 59.6%, 55.9% and 38.3% of our total purchase amounts. Purchases from our largest supplier amounted to RMB50.1 million, RMB45.5 million and RMB30.8 million, respectively, for the same periods, accounting for 35.0%, 22.2% and 15.1% of our total purchase amounts. Total purchase amounts represent total cash payments excluding primarily employee benefits expense and daily operating expenses, and mainly consists of capital expenditures, procurement of inventories, payment of clinical testing fee and clinical trial costs. During the Track Record Period, none of our Directors, their associates or any Shareholder who, to the knowledge of our Directors, owned more than 5% of our issued share capital, had any interest in any of our five largest suppliers.

**CROs**

In line with industry practice, we engaged certain Independent Third Party CROs to conduct (i) pre-clinical safety evaluation, compatibility studies on packaging materials, and tests such as antigen component quality or structure tests; and (ii) certain clinical trials implementation services during the Track Record Period. We have maintained stable relationships with CROs for pre-clinical studies. Clinical trial CROs are selected on a case-by-case basis for each vaccine candidate. We selected CROs based on various factors, including their quality, equipment and machinery, reputation and research experience in the vaccine field. Generally, we enter into separate agreements with CROs for each pre-clinical or clinical trial service.

Key terms of these agreements and statements of work are summarized as follows:

- *Services.* With respect to pre-clinical studies, the CROs mainly provide the following services: (i) safety evaluation, which include acute toxicity test in mice, long-term toxicity test in animals; (ii) compatibility studies on our vaccine products and their packaging; (iii) tests such as antigen component quality or structure tests. With respect to clinical trials, the CROs provide clinical monitoring and inspection services, clinical research coordinator services, data management services, medical monitoring services, and biological samples management to us.
- *Term.* The term of agreements for pre-clinical studies mainly range from three months to two years. The agreements for clinical trials do not have a fixed term. It generally expires after the completion of clinical trials and passing NMPA inspection. The CROs are required to complete the specific trials within the prescribed time limit.
- *Payments.* The payments to CROs conducting pre-clinical studies are generally one-off lump-sum payments. For payments to CROs conducting clinical trials, we are required to make payments to the CROs by installments according to milestones of respective services during the trials.
- *Dispute resolution.* In the event of any disputes related to the enforcement of any agreement arise due to adverse events during a trial, both parties shall negotiate amicably. If an agreement cannot be reached, the parties have the right to sue.
- *Intellectual property rights.* Substantially all intellectual property rights arising from the pre-clinical studies and clinical trials conducted by CROs will be owned by us. For pre-clinical studies, the original records of the trials are maintained by CROs for a prescribed number of years before being transferred to us, during which time we will be given access to such materials.

### INVENTORY MANAGEMENT

Our inventory primarily consists of raw materials and consumables used for our vaccine development. We have a warehouse at our manufacturing facility. We have established an inventory management system to monitor each stage of the warehousing process. Warehouse personnel are responsible for the inspection, storage and distribution of raw materials. Raw materials are separately stored in different areas of the warehouse according to their storage condition requirement, usage and batch number.

### INTELLECTUAL PROPERTY

We recognize the importance of intellectual property rights to our business and are committed to their development and protection. We actively seek patent protection for our vaccines and vaccine candidates in China and certain major jurisdictions and file additional patent applications, when appropriate, to cover certain antigens, strains, proteins, formulation and production process. We rely on a combination of patents, trademarks and trade secrets as well as employee and third-party confidentiality agreements to safeguard our intellectual property. As of the Latest Practicable Date, we owned seven patents in China and one patent in the United States. As of the same date, we had filed 13 patent applications in China, one patent application in the United States, one patent application in the EU and Canada, and two PCT patent applications. In addition, we obtained sole and exclusive license from McMaster University with respect to our TB Booster candidate. Details of patents we owned or applied for or were exclusively licensed related to our products as of the Latest Practicable Date are summarized below:

- *Ad5-EBOV.* We have applied for two patents in China and one PCT patent related to Ad5-EBOV. The three patent applications were all filed during the Track Record Period and are pending substantive examination.
- *MCV candidates.* We own one patent in China related to our MCV candidates. Our patent related to MCV in China will expire in 2035 unless we obtain an extension through patent term extension or adjustment, or term reduction due to filing of terminal disclaimers.
- *TB Booster candidates.* Under the McMaster Licensing Agreement, McMaster University has granted us a world-wide, exclusive license to make, use, offer to sell, sell, import, lease or otherwise dispose of the products in the tuberculosis field under the technology related to TB Booster. See “— Our Licensing Arrangements and Collaboration — Licensing Agreements Relating to Our Key Products — Exclusive License Agreement with McMaster University.”



- *DTcP candidates.* We own one patent in China and have applied for one patent in China related to our DTcP candidates. Our patent related to DTcP candidates in China will expire in 2032 unless we obtain an extension through patent term extension or adjustment, or term reduction due to filing of terminal disclaimers. We filed our patent application in China in 2015 and it is pending substantive examination.
- *PBPV candidate.* We own three patents in China and have applied for one patent in China related to our PBPV candidate. Our patents in China will expire between 2031 and 2034, unless we obtain an extension through patent term extension or adjustment, or term reduction due to filing of terminal disclaimers.
- *PCV13i candidate.* We have applied for one patent in China related to our PCV13i candidate. The patent was filed in 2018 and is currently pending substantive examination.

As of the Latest Practicable Date, we owned 17 trademarks, including 13 trademarks in China, two in Hong Kong, one in the EU and one in the United States. As of the same date, we had filed 20 trademark applications in China, four trademark applications in Hong Kong and five trademark applications in Taiwan, respectively; we also had one domain name in China and one international domain name.

Most of our key technologies and processes regarding products formulation and manufacturing are developed and maintained as trade secrets and proprietary know-how, which enable us to maintain a competitive position for our products. We generally require our employees, consultants, advisers and CROs conducting clinical trials to enter into confidentiality agreements. These agreements provide that all confidential information developed or made known to the individual during the course of the individual's relationship with us is to be kept confidential and not disclosed to third parties except under specific circumstances. Further, as a matter of our risk management policy, all the employees have agreed under the employment agreements that any invention made by them in the course of performing work duties and mainly using our materials or facilities is a service invention and belongs to us. As of the Latest Practicable Date, we were not involved in any significant intellectual property disputes nor had encountered major difficulties in enforcing our intellectual property rights in China that may have a material and adverse effect on our operations.



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### EMPLOYEES

As of the Latest Practicable Date, we had a total of 344 employees, all of which were located in the PRC. As of the same date, approximately 80% of our employees held a bachelor's degree or higher. The table below sets forth our employees by function as of the Latest Practicable Date:

	<u>Number of employees</u>
Research and development personnel	310
In-house R&D team	112
Manufacturing team	87
Quality management team	68
Supporting team	43
Commercialization	7
Finance	6
Strategy and development	3
Administrative	13
IT	5
<b>Total</b>	<u><u>344</u></u>

We recruit our employees through recruitment websites, recruiters, internal referral and job fairs. We conduct new employee training, as well as professional and safety training programs for all employees.

We enter into employment contracts with our employees to cover matters such as wages, benefits and grounds for termination. The remuneration package of our employees includes salary and bonus, which are generally determined by the qualifications, performance and seniority. During the Track Record Period and as of the Latest Practicable Date, we made contributions to social insurance and housing provident funds in compliance with applicable PRC laws and regulations in all material respects.

As of the Latest Practicable Date, we have established a labor union. During the Track Record Period and as of the Latest Practicable Date, we did not experience any material labor disputes or strikes that may have a material and adverse effect on our business, financial condition or results of operations.

### INSURANCE

We maintain insurance policies that are required under PRC laws and regulations as well as based on our assessment of our operational needs and industry practice. In line with industry practice in the PRC, we have elected not to maintain certain types of insurances, such as business interruption insurance or key man insurance. See “Risk Factors — Risks Relating to Our Operations — We have limited insurance coverage, and any claims beyond our insurance coverage may result in our incurring substantial costs and a diversion of resources.” Our Directors consider that our existing insurance coverage is sufficient for our present operations and in line with the industry practice in the PRC.

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### LICENSES AND PERMITS

As a PRC-based company engaged in developing, manufacturing and commercialization of vaccine products, we are subject to regular inspections, examinations and audits, and are required to maintain or renew the necessary permits, licenses and certifications for our business. Our PRC Legal Adviser has advised us that, as of the Latest Practicable Date, we had obtained all requisite licenses, approvals and permits from, and completed registrations with the relevant government authorities that are material for our current business operations in the PRC pursuant to the relevant laws and regulations or the requirements of the competent authority.

The following table set forth details of our material licenses and permits:

License/permit/certificate	Holder	Purpose	Issuing authority	Expiration date
Company Operating License (公司營業執照)	CanSino Biologics Inc.	Company Registration	Tianjin Binhai District Market and Quality Inspection Authorities	Indefinite
People's Republic of China Drug Manufacturing License (中華人民共和國藥品生產許可 證)	CanSino Biologics Inc.	Manufacturing License	Tianjin Market and Quality Supervision Administration	2021-10-18
Experimental Animal Use Permit (實驗動物使用許可 證)	CanSino Biologics Inc.	Animal Test	Tianjin Science & Technology Committee	2023-04-02
Biosafety Level 2 Laboratory Registration (生物安全2級實驗 室備案)	CanSino Biologics Inc.	Biosafety Level Registration	Tianjin Binhai Health and Family Planning Committee	N/A
High Tech Company Certificate (高新技術企業證書)	CanSino Biologics Inc.	High Tech & Innovation	Tianjin Science & Technology Committee, Tianjin Finance Bureau, Tianjin Municipal Tax Service, Tianjin Local Taxation Bureau, SAT	2019-11-23

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### PROPERTIES

#### Land

As of the Latest Practicable Date, we owned land use rights to one parcel of land in China, with an area of 65,001.8 m<sup>2</sup>, of which 37,163.75 m<sup>2</sup> was pledged as collateral for certain bank borrowings. See “Financial Information – Indebtedness.” As advised by our PRC Legal Adviser, subject to such pledge, we are entitled to occupy and use this parcel of land within the scope and term of use specified in the land use right certificates. We use this parcel of land primarily for manufacturing.

#### Buildings and Facilities

The Property Valuation Report from Duff & Phelps, an independent property valuer, set out in Appendix III of this Prospectus sets out details of our owned land and construction-in-progress thereon as of December 31, 2018. Duff & Phelps valued our owned property interests at an amount of approximately RMB277.0 million as of December 31, 2018.

As of the Latest Practicable Date, we leased five properties with an aggregate gross floor area of 11,793.96 square meters from Independent Third Parties. These properties are located at Biomedical Park, 185 South Avenue, West District, Tianjin Economic-Technological Development Area (“**TEDA Bio-Park**”). The following table sets forth the details of our leased properties as of the Latest Practicable Date:

Location	Use	Gross floor area (square meter)	Lease term
Room 301-310, Floor 3, TEDA Bio-Park	R&D, manufacturing	1,544.71	March 1, 2018 to June 30, 2021
Room 311-320, Floor 3, TEDA Bio-Park	R&D, manufacturing	1,440.06	March 1, 2018 to June 30, 2021
Room 401-420, Floor 4, TEDA Bio-Park	R&D, offices	2,984.77	March 1, 2018 to June 30, 2021
Room 101-120, Floor 1 and Room 211-220, Floor 2, TEDA Bio-Park	R&D	4,324.42	March 1, 2018 to January 31, 2023
Room 201-210, Floor 2, TEDA Bio-Park	R&D	1,500.00	March 1, 2018 to January 31, 2023

Our manufacturing facility is located at TEDA Bio-Park, which is a development area concentrated with biopharmaceutical companies primarily engaged in research and development and drug manufacturing. We believe that the area has limited exposure to hazardous chemicals considering the nature of companies located therein.

As of the Latest Practicable Date, our five leased properties at TEDA Bio-Park (the “**Relevant Properties**”) were located in a building on allocated land (劃撥用地). As advised by our PRC Legal Adviser, allocated land can only be leased upon obtaining the approval by the relevant land and real estate administrative authorities and/or the completion of certain procedures as provided by the relevant laws and regulations. As the lessor of the Relevant Properties (the “**Lessor**”) has not completed the relevant procedures for leasing allocated land and the properties thereon, our PRC Legal Adviser has advised us that the land parcel of the Relevant Properties may be ordered to be transferred back to the land administrative authority, and the lease agreements for the Relevant Properties entered into by the Lessor and our Company may be deemed invalid.

Based on (i) the acknowledgement of and the interview with the local bureau of planning and land resources authorities for the Relevant Properties, which our PRC Legal Adviser has advised is the competent authority for this matter, (ii) the interview with the Lessor, and (iii) the registration and filing of the lease agreements for the Relevant Properties with the relevant land and real estate administrative authorities have been completed, our PRC Legal Adviser has advised us that the risk of (i) the lease agreements for the Relevant Properties being deemed invalid or (ii) our Company being required to vacate from the Relevant Properties is very remote.

### **ENVIRONMENTAL PROTECTION, OCCUPATIONAL HEALTH AND SAFETY**

We are subject to environmental protection and occupational health and safety laws and regulations in China. However, as our manufacturing activities have been primarily limited to those for product registration purposes only during the Track Record Period, we did not incur material environmental protection expenses during such period. During the Track Record Period and as of the Latest Practicable Date, we complied with the relevant environmental and occupational health and safety laws and regulations in China and we did not have any incidents or complaints which had a material and adverse effect on our business, financial condition or results of operations during the same period.

We strive to provide a safe working environment for our employees. We have implemented work safety guidelines setting out safety practices, accident prevention and accident reporting. In particular, we have established and implemented guidelines in accordance with relevant PRC laws and regulations on the storage, management, handling and use of viruses and bacteria. These guidelines include those related to the recording and inspection of batches of viruses and bacteria, a multi-department approval process to obtain viruses and bacteria from our inventory, as well as the safe disposal of viruses and bacteria. Our employees with specified responsibilities, including handling certain equipment and conducting animal research, are required to hold relevant qualifications, as well as wearing proper safety gear when working. We conduct safety inspections of our manufacturing facility regularly.

## BUSINESS

### AWARDS AND RECOGNITION

The table below sets forth a summary of the major awards and recognition we received during the Track Record Period.

Award/Recognition	Award date	Awarding authority
China's Top 100 Innovative Growth Companies in 2017 (2017中國年度創新成長企業100強)	December 2017	CY Zone
Excellence Award of the Innovation Studio Competition (創新工作室優秀獎)	November 2017	General Union of Tianjin Economic and Technological Development Area
High and New Technology Enterprise Certificate (高新技術企業證書)	November 24, 2016	Tianjin Science and Technology Commission, Tianjin Finance Bureau, Tianjin Municipal Tax Service, Tianjin Local Taxation Bureau, SAT
Director Unit of the Overseas Chinese Association for Innovation and Entrepreneurship (僑聯新僑創新創業聯盟理事單位)	September 2016	All-China Federation of Returned Overseas Chinese
Overseas Chinese Contribution Award as an Innovative Company (僑界貢獻獎-創新企業)	September 2016	All-China Federation of Returned Overseas Chinese
Top 20 Technological Innovative Companies in TEDA (科技創新20強)	2016	Tianjin Economic and Technological Development Area Management Committee
Contribution Award of the 3rd TEDA Innovation and Entrepreneurship Competition (2016創未來第三屆泰達創新創業大賽雙創貢獻獎)	November 29, 2016	Tianjin Economic and Technological Development Area Management Committee
Tianjin Technology SME Certificate (天津市科技型中小企業證書)	January 14, 2015	Tianjin Science and Technology Commission
Major National Science and Technology Project for "Innovative Drug Development" (國家科技重大專項重大新藥創製專項立項) – Combo Vaccine	September 2015	Ministry of Science and Technology of the PRC
Peking University Graduate Teaching Practice Base for Master of Pharmacy (北京大學藥學碩士專業學位研究生教學實踐基地)	2015	Peking University

## BUSINESS

Award/Recognition	Award date	Awarding authority
Nankai University Talent Development Cooperation Development Base (南開大學人才培養合作開發基地)	2015	Nankai University
CanSino Biologics was awarded as the Model Group of Tianjin (天津市模範集體)	2015	Tianjin Municipal People's Government
International Science and Technology Cooperation Enterprise in Tianjin (天津市國際科技合作企業)	November 2016	Tianjin Science and Technology Commission
Key Laboratory of Recombinant Bacterial Recombination and Bacterial Vaccines in Tianjin (天津市呼吸道細菌重組及結合疫苗企業重點實驗室)	February 2014	Tianjin Science and Technology Commission
Major National Science and Technology Project for "Innovative Drug Development" (國家科技重大專項重大新藥創製專項立項) – multi-component pneumonia broad-spectrum vaccine	June 2014	Ministry of Science and Technology of the PRC
Postdoctoral Program Research Station (博士後科研工作站)	December 2014	Ministry of Human Resources and Social Security of the PRC
Key Overseas Chinese Entrepreneurship Team (重點華僑華人創業團隊)	November 2011	Overseas Chinese Affairs Office of the State Council

## COMPLIANCE AND LEGAL PROCEEDINGS

We may be involved in legal proceedings in the ordinary course of business from time to time. During the Track Record Period and as of the Latest Practicable Date, none of us or our Directors were involved in any litigation, arbitration or administrative proceedings which could have a material adverse impact on our business, financial condition or results of operations. As of the Latest Practicable Date, we were not aware of any pending or threatened litigation, arbitration or administrative proceedings against us or our Directors which may have a material and adverse impact on our business, financial condition or results of operations.

As advised by our PRC Legal Adviser, during the Track Record Period and as of the Latest Practicable Date, we had complied with the relevant PRC laws and administrative regulations material to our business operations.

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## RELATIONSHIP WITH CONTROLLING SHAREHOLDERS

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### OUR CONTROLLING SHAREHOLDERS

Immediately after the completion of the Global Offering (assuming the Over-allotment Option is not exercised), Dr. Yu, Dr. Zhu, Dr. Qiu and Dr. Mao, through the Concert Party Agreement, will be collectively interested in approximately 31.71% of the total issued share capital of our Company. Accordingly, Dr. Yu, Dr. Zhu, Dr. Qiu and Dr. Mao will continue to be our Controlling Shareholders.

### COMPETITION

Each of our Controlling Shareholders confirms that as of the Latest Practicable Date, he/she did not have any interest in a business, apart from the business of our Company, which competes or is likely to compete, directly or indirectly, with our business, and requires disclosure under Rule 8.10 of the Listing Rules.

#### **Tianjin Kunjian**

Tianjin Kunjian Pharmaceuticals Co., Ltd. (天津坤健生物製藥有限公司, “**Tianjin Kunjian**”) was incorporated in the PRC on September 1, 2010. As of the Latest Practicable Date, Tianjin Kunjian was held as to approximately 21.60%, 21.60%, 21.60% and 25.20% by Dr. Yu, Dr. Zhu, Dr. Qiu and Dr. Mao, respectively. Dr. Yu, Dr. Zhu, Dr. Qiu and Dr. Mao also serve as directors of Tianjin Kunjian. On January 13, 2017, our Company entered into an asset acquisition agreement with Tianjin Kunjian, pursuant to which our Company acquired all of the fixed assets of Tianjin Kunjian at a consideration of RMB2,113,598.00, which was determined with reference to an independent valuation report, the valuation date of which was July 31, 2016. After completion of the assets acquisition and as of the Latest Practicable Date, Tianjin Kunjian was no longer engaged in any research or development or business operations. Our Founders plan to deregister Tianjin Kunjian in due course.

#### **Wuyi Kunjian**

Wuyi Kunjian Pharmaceuticals and Technology Co., Ltd. (武義坤健醫藥科技有限公司, “**Wuyi Kunjian**”) was incorporated in the PRC on June 25, 2012. As of the Latest Practicable Date, Wuyi Kunjian was held as to 31%, 20% and 49% by Dr. Qiu, Tianjin Kunjian and Wuyi Jiayuan Pharmaceutical Ingredients Co., Ltd (武義家園醫藥原料有限公司), respectively. Wuyi Jiayuan Pharmaceutical Ingredients Co., Ltd was an Independent Third Party owned by two individuals, both of whom are Independent Third Parties as well. As of the Latest Practicable Date, Wuyi Kunjian was not engaged in any research or development or business operations. The shareholders plan to deregister Wuyi Junjian in due course.

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## RELATIONSHIP WITH CONTROLLING SHAREHOLDERS

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### **Resonant BioPharma**

Resonant BioPharma Inc. (“**Resonant BioPharma**”) was incorporated in Canada on March 15, 2012. As of the Latest Practicable Date, Resonant BioPharma was held as to 50% and 50% by Dr. Yu and Dr. Qiu, respectively. As of the Latest Practicable Date, Resonant BioPharma was not engaged in any research or development or business operations. Dr. Yu and Dr. Qiu plan to deregister Resonant BioPharma in due course.

### **INDEPENDENCE FROM CONTROLLING SHAREHOLDERS**

Having considered the following factors, our Directors are satisfied that we are able of carrying out our business independently from our Controlling Shareholders after the Listing.

#### **Management Independence**

Save as disclosed below, none of our Directors, Supervisors or senior management members serves as directors, supervisors or senior management members in any close associates of our Controlling Shareholders.

Our Directors are of the view that our Board and senior management team are able to manage our business independently from the Controlling Shareholders and their close associates for the following reasons:

- (i) save as disclosed below, our executive Directors and senior management members do not hold any role as an executive director or member of senior management in any close associate of our Controlling Shareholders;
  - (a) although Dr. Yu, Dr. Zhu, Dr. Qiu and Dr. Mao serve as directors of Tianjin Kunjian, Tianjin Kunjian was not engaged in any research or development or business operations as of the Latest Practicable Date;
  - (b) although Dr. Qiu and Dr. Mao serve as directors of Wuyi Kunjian, Wuyi Kunjian was not engaged in any research or development or business operations as of the Latest Practicable Date;
- (ii) according to the Articles of Association, with respect to any matters of conflict or potential conflict of interest which involve a transaction between our Company and another company or entity to which a Director holds office, such Director shall abstain from voting and shall not be counted towards the quorum for the voting;



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## RELATIONSHIP WITH CONTROLLING SHAREHOLDERS

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- (iii) we have appointed four independent non-executive Directors to provide a balance of the number of potentially interested and independent Directors with a view to promote the interests of our Company and the Shareholders as a whole. The independent non-executive Directors will be entitled to engage professional advisers at our cost for advice on matters relating to any potential conflict of interest arising out of any transaction to be entered into between our Company and our Directors or their respective associates;
- (iv) each of our Directors is aware of his/her fiduciary duties and responsibilities under the Listing Rules as a director, which requires that she/he act in the best interests of our Company and our Shareholders as a whole;
- (v) where a Shareholders' meeting is held to consider a proposed transaction in which the Controlling Shareholders have a material interest, the Controlling Shareholders shall abstain from voting on the resolutions and shall not be counted towards the quorum for the voting; and
- (vi) our Company has appointed Somerley Capital Limited as our compliance adviser, which will provide advice and guidance to our Company in respect of compliance with the applicable laws and Listing Rules including various requirements relating to Directors' duties and corporate governance.

### **Financial Independence**

Our Company has an independent financial system. We make financial decisions according to our own business needs and neither our Controlling Shareholders nor their close associates intervene with our use of funds. We have opened accounts with banks independently and do not share any bank account with our Controlling Shareholders or their close associates. We have made tax filings and paid tax independently from our Controlling Shareholders and their close associates pursuant to applicable laws and regulations. We have established an independent finance department as well as implemented sound and independent audit, accounting and financial management systems. We have adequate internal resources and credit profile to support our daily operations.

Based on the above, our Company considers there is no financial dependence on our Controlling Shareholders and their close associates.

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## RELATIONSHIP WITH CONTROLLING SHAREHOLDERS

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### Operational Independence

We engage in our operations independently, making and implementing operational decisions independently. We have obtained all material licenses and permits necessary for our business operations and are not dependent upon our Controlling Shareholders or their close associates for any such licenses and permits. In addition, we have established our internal organizational and management structure which includes shareholders' meetings, our Board of Directors and other committees and formulated the terms of reference of these bodies in accordance with the requirements of the applicable laws and regulations, the Listing Rules and the Articles of Association, so as to establish a regulated and effective corporate governance structure with independent departments, each with specific areas of responsibilities.

### CORPORATE GOVERNANCE MEASURES

Other than deviation from Code Provision A.2.1 as disclosed in the section headed "Directors, Supervisors and Senior Management" in this Prospectus, our Company will comply with the provisions of the Corporate Governance Code set out in Appendix 14 to the Listing Rules, which sets out principles of good corporate governance.

Each of our Controlling Shareholders has confirmed that she/he fully comprehends her/his obligations to act in our Shareholders' and our best interests as a whole. Our Directors believe that there are adequate corporate governance measures in place to manage existing and potential conflicts of interest. In order to further avoid potential conflicts of interest, we have implemented the following measures:

- (a) where a board meeting or Shareholders' meeting is to be held for considering proposed transactions in which any of our Director or Controlling Shareholder or any of their respective close associates has a material interest, the relevant Director or Controlling Shareholder will not vote on the relevant resolutions;
- (b) the independent non-executive Directors will review, on an annual basis, whether there are any conflicts of interests between the Company and our Controlling Shareholder (the "**Annual Review**") and provide impartial and professional advice to protect the interests of our minority Shareholders;
- (c) our Controlling Shareholder will undertake to provide all information necessary, including all relevant financial, operational and market information and any other necessary information as required by the independent non-executive Directors for the Annual Review;
- (d) our Company will disclose decisions on matters reviewed by the independent non-executive Directors either in its annual reports or by way of announcements;

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## RELATIONSHIP WITH CONTROLLING SHAREHOLDERS

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- (e) where our Directors reasonably request the advice of independent professionals, such as financial advisers, the appointment of such independent professionals will be made at our Company's expenses; and
- (f) we have appointed Somerley Capital Limited as our compliance adviser to provide advice and guidance to us in respect of compliance with the applicable laws and regulations, as well as the Listing Rules, including various requirements relating to corporate governance.

Based on the above, our Directors are satisfied that sufficient corporate governance measures have been put in place to manage conflicts of interest that may arise between our Company and our Controlling Shareholders, and to protect our minority Shareholders' interests after the Listing.

## DIRECTORS, SUPERVISORS AND SENIOR MANAGEMENT

### DIRECTORS

Our Board consists of 12 Directors, comprising four executive Directors, four non-executive Directors and four independent non-executive Directors. The following table sets out information in respect of the Directors:

Name	Age	Position	Date of joining our Company	Date of appointment as a Director	Roles and responsibilities
Xuefeng YU	55	Chairman of the Board, executive Director, chief executive officer and general manager	January 13, 2009	January 13, 2009	Overseeing strategic development, overall operation and management and major decision-making
Shou Bai CHAO	56	Executive Director, chief operating officer and deputy general manager	May 1, 2018	June 22, 2018	Management of daily operations and strategic development
Tao ZHU (朱濤)	46	Executive Director, chief scientific officer and deputy general manager	January 13, 2009	January 13, 2009	Leading our vaccine research and development
Dongxu QIU	59	Executive Director, senior vice president and deputy general manager	January 13, 2009	January 13, 2009	Advising on our business and strategic development
Qiang XU (許強)	50	Non-executive Director	December 31, 2011	December 31, 2011	Participating in formulating the Company's corporate and business strategies
Liang LIN (林亮)	44	Non-executive Director	August 6, 2013	August 6, 2013	Participating in formulating the Company's corporate and business strategies
Nisa Bernice Wing-Yu LEUNG (梁穎宇)	48	Non-executive Director	September 16, 2015	September 16, 2015	Participating in formulating the Company's corporate and business strategies

## DIRECTORS, SUPERVISORS AND SENIOR MANAGEMENT

Name	Age	Position	Date of joining our Company	Date of appointment as a Director	Roles and responsibilities
Zheng YIN (尹正)	47	Non-executive Director	April 12, 2017	April 12, 2017	Participating in formulating the Company's corporate and business strategies
Shiu Kwan Danny WAI (韋少琨)	55	Independent non-executive Director	June 22, 2018	June 22, 2018	Supervising and providing independent judgement to the Board
Zhu XIN (辛殊)	50	Independent non-executive Director	June 22, 2018	June 22, 2018	Supervising and providing independent judgement to the Board
Luis BARRETO	67	Independent non-executive Director	June 22, 2018	June 22, 2018	Supervising and providing independent judgement to the Board
Pierre Armand MORGON	56	Independent non-executive Director	June 22, 2018	June 22, 2018	Supervising and providing independent judgement to the Board

### Executive Directors

**Xuefeng YU**, aged 55, is a co-Founder of our Company. Dr. Yu was appointed as an executive Director on January 13, 2009 and has served as the chief executive officer of our Company since January 2009. He is primarily responsible for overseeing strategic development, overall operation and management and major decision-making of our Company. In addition, Dr. Yu is also responsible for managing the commercial operations center of our Company.

Dr. Yu led the introduction of a new reconstituted tuberculosis vaccine from McMaster University in Canada and the development of such vaccine was supported by the Aeras Global TB Vaccine Foundation and the Ministry of Science and Technology of the PRC. He also led the introduction of adenoviral vector production cell lines and related production technology from the National Research Institute of Canada, which laid the foundation for the development of Ad5-EBOV.

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## DIRECTORS, SUPERVISORS AND SENIOR MANAGEMENT

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Dr. Yu has more than 30 years of experience in biotech research and development. From September 1990 to June 1991, Dr. Yu worked as a lecturer of the biology department in Nankai University. From 1996 to 1998, Dr. Yu served as a scientist at IBEX Technologies Inc. (a company listed on Toronto Stock Exchange Venture Exchange, ticker symbol: IBT), during which time he also studied in McGill University. Dr. Yu joined Sanofi Pasteur in May 1998 and was in the position of director of fermentation development in Canada when he left the company in August 2009.

Dr. Yu has been recognized as a member of the “Thousand Talents Program” (“千人計劃”) in Tianjin by Tianjin Municipal Government in February 2010 and a member of the “Beijing-Tianjin-Hebei Biomedical Entrepreneurship Leading Personnel” (“京津冀生物醫藥產業化示範區創業領軍人才”) by Tianjin Municipal Government in January 2010.

Dr. Yu obtained a bachelor’s degree in microbiology in July 1985 and a master’s degree in microbiology in June 1988 from Nankai University. He received his doctorate degree in microbiology from McGill University in Canada in June 1998.

**Shou Bai CHAO**, aged 56, was appointed as an executive Director on June 22, 2018 and the chief operating officer on May 1, 2018. He is primarily responsible for management of daily operations and strategic development of our Company. In addition, Dr. Chao is also responsible for production management and quality control.

Dr. Chao has around 33 years of experience in the biotechnology industry. Prior to joining our Company, Dr. Chao held positions at various companies and organizations, including research engineer at Institute of Process Engineering, Chinese Academy of Sciences from 1985 to 1987, research associate at industrial biotechnology centre at University of Waterloo from September 1987 to March 1992, bioprocess engineer at Philom Bios Ltd. from August 1992 to August 1993, manager of bacterial vaccines from August 1993 to April 1997 and manager of validation compliance from April 1997 to August 2000 at Sanofi Pasteur, senior manager of quality assurance technical support at Genentech Inc. from August 2000 to December 2000, assistant vice president of vaccine technology at Wyeth Pharmaceuticals from January 2001 to December 2007, vice president and senior vice president at AstraZeneca plc from January 2008 to April 2018, and president and director of the board at Chinese Biopharmaceutical Association-USA from June 2014 to June 2016.

Dr. Chao obtained a bachelor’s degree in inorganic chemical industry from Jiangxi Institute of Technology (江西工學院) (currently known as Nanchang University (南昌大學)) in July 1982, and a master’s degree in chemical metallurgy from Chinese Academy of Sciences (中國科學院) in July 1985. Dr. Chao graduated from the University of Waterloo in Canada with a doctorate degree in biochemical engineering in October 1992.

Dr. Chao is the spouse of Dr. Mao, the co-Founder, senior vice president and deputy general manager of our Company.

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## DIRECTORS, SUPERVISORS AND SENIOR MANAGEMENT

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**Tao ZHU (朱濤)**, aged 46, is a co-Founder of our Company. Dr. Zhu was appointed as an executive Director on January 13, 2009 and has served as the chief scientific officer of our Company since January 2009. He is primarily responsible for leading the vaccine research and development of our Company. In addition, Dr. Zhu is also responsible for the management of regulatory and clinical affairs.

Together with experts of Academy of Military Medical Sciences, Dr. Zhu led the development and pre-clinical research of the only available recombinant Ebola vaccine in China, the production of which was approved by the CFDA. He also led the combined vaccine project and PBPV project, which have been selected as one of the major science and technology projects in the National Twelfth Five-Year Plan for “Significant New Drug Creation” (國家十二五“重大新藥創製”重大科技專項). His achievements also include the establishment of a polysaccharide protein binding technology platform and development of a variety of vectors including CRM197, the process development, pre-clinical research and clinical applications of several products including MCV4, and the invention of seven patents in the PRC.

Dr. Zhu worked at Integrated Genomics Inc. as a scientist from December 2004 to December 2005 and joined Sanofi Pasteur in January 2006 and was in the position of senior scientist before he left the company in November 2008.

Dr. Zhu was recognized as a member of the “Thousand Talents Program” (“千人計劃”) by the PRC government in May 2011.

Dr. Zhu received his bachelor’s degree in biological science and technology in July 1995 and his master’s degree in biochemical in June 1998 from Tsinghua University. He graduated from University of Pittsburgh with a doctorate degree in chemical engineering in the U.S. in April 2003 and conducted his postdoctoral research in Carnegie Mellon University in the U.S. till October 2004.

**Dongxu QIU**, aged 59, is a co-Founder of our Company. Dr. Qiu was appointed as an executive Director on January 13, 2009 and has served as senior vice president since January 2009. He is primarily responsible for advising on our business and strategic development of our Company. Dr. Qiu has led several rounds of financing of our Company and the technology transfers of PCV13 and PPV23.

Dr. Qiu has around 25 years of experience in the biotechnology industry. From January 1993 to April 1997, Dr. Qiu was a research scientist at Biomira, Inc. From 1999 to 2000, He was associate director of product operations at Altarex Inc., responsible for analytical development and product formulation. Dr. Qiu served as head of scientific operations at ARIUS Research Inc. from 2000 to 2002, president of Asia at MDS Capital from May 2003 to September 2005, deputy general manager at Shanghai Jima Pharmaceutical Technology Co., Ltd. (上海吉瑪製藥技術有限公司) from 2006 to 2009, and general manager at ChinaBio LLC from March 2007 to April 2011.

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## DIRECTORS, SUPERVISORS AND SENIOR MANAGEMENT

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Dr. Qiu graduated from Shenyang Pharmaceutical College (瀋陽藥學院) currently known as Shenyang Pharmaceutical University (瀋陽藥科大學) with a bachelor's degree in pharmacy in July 1982. He obtained his doctorate degree in pharmacy from Beijing Medical University (北京醫科大學) (currently known as Peking University Health Science Center (北京大學醫學部)) in December 1987. He continued his postdoctoral research in chemical engineering at the University of Konstanz in Germany from November 1989 to April 1991 and at the University of Montreal in Canada from May 1991 to January 1993. Dr. Qiu obtained a master's degree in business administration from the University of Western Ontario in Canada in October 2000.

### Non-executive Directors

**Qiang XU (許強)**, aged 50, was appointed as a non-executive Director on December 31, 2011. Mr. Xu is primarily responsible for participating in formulating the Company's corporate and business strategies.

From April 1998 to April 2003, Mr. Xu served as a manager of the department of investment banking at Suzhou Industrial Park State-owned Asset Management Co., Ltd. (蘇州工業園區國有資產管理有限公司). From March 2005 to March 2007, he worked at Suzhou Industrial Park Real Estate Management Co., Ltd. (蘇州工業園區地產經營管理有限公司) as a general manager of the department of investment. Mr. Xu serves as the chairman of board at Suzhou Industrial Park Asset Management Co., Ltd. (蘇州工業園區資產管理有限公司).

Mr. Xu received his master's degree in business administration from the University of Hong Kong in December 2004.

**Liang LIN (林亮)**, aged 44, was appointed as a non-executive Director on August 6, 2013. Mr. Lin is primarily responsible for participating in formulating the Company's corporate and business strategies.

Prior to studying in China Europe International Business School (中歐國際工商學院), Mr. Lin served as assistant product manager at Beijing Merek Pharmaceutical Consulting., Ltd. till June 2007. He served as business development manager at GlaxoSmithKline (China) Investment Co., Ltd from April 2009 to April 2010. Mr. Lin served as investment director from February 2011 to March 2017 and has been a partner since March 2017 at Lilly Asia Ventures (禮來亞洲基金). He is currently a director at Shenyang Sinqi Pharmaceutical Co.,Ltd. (瀋陽興齊眼藥股份有限公司) (a company listed on the Shenzhen Stock Exchange, stock code: 300573), ACEA Biosciences, Inc., Zhejiang ACEA Pharmaceutical Co., Ltd. (浙江艾森藥業有限公司), Beijing Kawin Technology Share-Holding Co., Ltd. (北京凱因科技股份有限公司), Mabspace Biosciences (Suzhou) Company Limited (邁博斯生物醫藥(蘇州)有限公司) and Hunan Sansure Biotech Inc. (湖南聖湘生物科技有限公司).

Mr. Lin received a bachelor's degree in chemical and pharmaceutical technology in July 1996 and a master's degree in medicinal chemistry in June 1999 from China Pharmaceutical University (中國藥科大學). Mr. Lin obtained his master degree in business administration from China Europe International Business School in March 2009.



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## DIRECTORS, SUPERVISORS AND SENIOR MANAGEMENT

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**Nisa Bernice Wing-Yu LEUNG** (梁穎宇), aged 48, was appointed as a non-executive Director on September 16, 2015. Ms. Leung is primarily responsible for participating in formulating the Company's corporate and business strategies.

Ms. Leung was co-founder and executive director at Biomedic (HK) Limited from 2003 to 2007 and has been a partner at Qiming Development (HK) Limited since December 2007. She has been a director at Gan & Lee Pharmaceutical Holdings Ltd. (甘李藥業股份有限公司) since March 2010, at Zhejiang Nurotron Nerve Electronic Technology Co., Ltd. (浙江諾爾康神經電子科技股份有限公司) since March 2014, at Berry Oncology Co., Ltd. (福建和瑞基因科技有限公司) since May 2018, at Venus MedTech (Hangzhou) Medical Devices Co., Ltd. (杭州啟明醫療器械有限公司) since July 2009, at Zai Lab Limited (a company listed on Nasdaq, ticker symbol: ZLAB) since 2014 and at New Horizon Health Sciences Co., Ltd. (浙江諾輝健康科技有限公司) since July 2017.

In addition, Ms. Leung was a director at Chengdu Berry Genomics Co., Ltd. (成都市貝瑞和康基因技術股份有限公司), a company listed on Shenzhen Stock Exchange (stock code: 000710), from September 2013 to June 2017.

Ms. Leung was appointed as the Justice of the Peace (太平紳士) in June 2016 by the Government of the Hong Kong Special Administrative Region.

Ms. Leung received her bachelor's degree in management from Cornell University in May 1992 and her master's degree in business administration from Stanford University in June 2001.

**Zheng YIN** (尹正), aged 47, was appointed as a non-executive Director on April 12, 2017. Dr. Yin is primarily responsible for participating in formulating the Company's corporate and business strategies.

Dr. Yin served as research scientist at S\*Bio Pte Ltd from September 2000 to April 2004. He worked as principal scientist at Novartis Institute for Tropical Diseases Pte Ltd from May 2004 to December 2008. Dr. Yin served as a vice dean of school of pharmacy from July 2009 to November 2011, and dean of school of pharmacy from November 2011 to April 2015 at Nankai University. He also served as a professor at Tsinghua University. Dr. Yin joined SDIC Fund Management Co., Ltd. (國投創新投資管理有限公司) as an executive director in August 2016, and worked as managing director from February 2018 to July 2018. He has been executive director and manager at Sanyi Chuangxin (Beijing) Investment Management Co., Ltd. (三一創新(北京)投資管理有限公司) since August 2018.

Dr. Yin received his bachelor's degree in chemistry in July 1994 and his master's degree in organic chemistry in June 1997 from Nankai University. He obtained his doctorate degree in chemistry from the National University of Singapore in June 2001.

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## DIRECTORS, SUPERVISORS AND SENIOR MANAGEMENT

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### Independent Non-executive Directors

**Shiu Kwan Danny WAI (韋少琨)**, aged 55, was appointed as an independent non-executive Director on June 22, 2018, with the appointment to take effect upon Listing. Mr. Wai is primarily responsible for supervising and providing independent judgement to the Board.

Mr. Wai has served as adviser at UBS AG Hong Kong Branch since February 2018 and an independent non-executive director of Shanghai Fosun Pharmaceutical (Group) Co., Ltd. (上海復星醫藥(集團)股份有限公司) (a company listed on the Shanghai Stock Exchange, stock code: 600196, and the Stock Exchange, stock code: 2196), since June 2016.

Mr. Wai served as analyst at the MAC Group, Inc. (Hong Kong) (currently part of the Capgemini Group) from July 1987 to September 1990 and financial analyst at Postal Buddy Corporation in the U.S. from 1992 to 1994. He was assistant manager, manager, assistant director and director of corporate finance department at Jardine Fleming Holdings Limited (Hong Kong) (currently part of JPMorgan Chase & Co.) and vice president in merger & acquisition department at JPMorgan Securities (Asia Pacific) Limited from September 1994 to May 2002. In addition, he served as executive director, managing director and head of Asia-global healthcare group at the Investment Banking Department of UBS AG (Hong Kong) from May 2004 to October 2015.

Mr. Wai received his bachelor's degree in social sciences in November 1987 from the University of Hong Kong and a master's degree in business administration in June 1992 from the John E. Anderson Graduate School of Management at University of California, Los Angeles.

**Zhu XIN (辛珠)**, aged 50, was appointed as an independent non-executive Director on June 22, 2018, with the appointment to take effect upon Listing. Ms. Xin is primarily responsible for supervising and providing independent judgement to the Board.

From 2006 to 2014, Ms. Xin held senior management positions at several companies, including vice-president at Hopson Development Holdings Limited (合生創展集團有限公司) (a company listed on the Stock Exchange, stock code: 754), executive director and executive vice president of China Aoyuan Property Group Limited (中國奧園地產集團) (a company listed on the Stock Exchange, stock code: 3883), where she was primarily responsible for financing, accounting and auditing, and chief financial officer at Logan Property Holdings Company Limited (龍光地產控股有限公司) (a company listed on the Stock Exchange, stock code: 3380). From May 2015 to March 2017, she served as the executive vice president of YIHE Real Estate Holdings Limited (頤和地產集團).

Ms. Xin has abundant experience in accounting, auditing and corporate finance management. She has been a member of CPA Australia since October 2010.

Ms. Xin received a bachelor's degree in accounting from Renmin University of China in July 1990 and a master's degree in business administration in international management from International College of Auckland Institute of Studies in December 1999.

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## DIRECTORS, SUPERVISORS AND SENIOR MANAGEMENT

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**Luis BARRETO**, aged 67, was appointed as our independent non-executive Director on June 22, 2018, with the appointment to take effect upon Listing. He is primarily responsible for supervising and providing independent judgement to the Board.

Dr. Barreto has more than 30 years of experience in the fields of public policy, government relations, scientific, medical, clinical development, regulatory affairs and global health. Dr. Barreto joined Sanofi Pasteur (then known as Connaught Laboratories Limited) in 1988, where he held a number of positions including director and vice president and spent more than 23 years in research and development, clinical trials and immunization policy advice. Dr. Barreto has been president at Dr. Luis Barreto & Associates since 2011, strategic adviser at NEOMED-LABS Inc. since March 2016 and senior scientific adviser at Inventprise LLC since March 2016.

Dr. Barreto graduated from Bangalore University in India with the degrees of bachelor of medicine and bachelor of surgery in August 1976. He obtained his doctor of medicine degree from the University of Nagpur in India in November 1979 and his master in health sciences from the University of Toronto in June 1983.

**Pierre Armand MORGON**, aged 56, was appointed as an independent non-executive Director on June 22, 2018, with the appointment to take effect upon Listing. Dr. Morgon is primarily responsible for supervising and providing independent judgement to the Board.

Dr. Morgon has more than 30 years of experience in the pharmaceutical and biotech industry. He currently holds positions in various companies, including, non-executive director at Vaccitech Ltd. (a company which develops flu vaccines) since December 2017, chairman of the board at Verometix AG (a company which develops synthetic vaccines) since December 2016, chief executive officer and founder of MRGN Advisers since January 2015, director at Eurocine Vaccines AB (a company which develops nasal vaccines) since December 2013 and director at Theradiag SA since July 2012.

In addition, Dr. Morgon was anesthetic product manager at Imperial Chemical Industries Pharma from June 1988 to July 1990, director of international marketing at Synthelabo Pharmacie from July 1990 to May 1998, vice president at Aventis Pasteur from June 1998 to October 2003, general director at Yamanouchi Pharma Co., Ltd. from October 2003 to October 2004, vice president and director of hospital operations at Bristol-Myers Squibb Company from November 2004 to July 2006, director of therapeutic unit at Schering-Plough Corporation from August 2006 to November 2008, board member at BioAlliance Pharma SA from August 2008 to May 2009, and vice president of franchise and global market operations at Sanofi Pasteur from June 2009 to March 2013.

Dr. Morgon received his master's degree in marketing management from ESSEC Business School in October 1988 and a diploma of advanced studies in commercial law and economic law from Jean Moulin University Lyon 3, France in November 1986. He received his doctorate degree in pharmacy from Claude Bernard University Lyon 1, France in July 1985.

Save as disclosed above, none of our Directors has any other directorships in listed companies during the three years immediately prior to the date of this Prospectus.

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## DIRECTORS, SUPERVISORS AND SENIOR MANAGEMENT

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Save as disclosed in this Prospectus, each of our Directors has confirmed that there are no other matters relating to his appointment as a Director that need to be brought to the attention of our Shareholders and there is no other information in relation to his appointment which is required to be disclosed pursuant to Rule 13.51(2) of the Listing Rules.

Save as disclosed above and in the section headed “Relationship with Controlling Shareholders,” each of our Directors confirms that he/she did not have any interest in a business, apart from the business of our Company, which competes or is likely to compete, directly or indirectly, with our business, and requires disclosure under Rule 8.10 of the Listing Rules.

### SUPERVISORS

The Board of Supervisors comprises three supervisors. The following table sets out certain information relating to the Supervisors of the Company.

Name	Age	Position	Date of joining our Company	Date of appointment as a Supervisor	Roles and responsibilities
Jixiang ZHU (朱際翔)	46	Chairman of the Board of Supervisors	October 31, 2011	August 6, 2013	Overseeing the Company's operations and financial situation
Jieyu ZOU (鄒潔羽)	29	Supervisor	June 14, 2016	June 14, 2016	Overseeing the Company's operations and financial situation
Zhengfang LIAO (廖正芳)	34	Employee supervisor	June 1, 2010	December 15, 2016	Overseeing the Company's operations and financial situation

**Jixiang ZHU (朱際翔)**, aged 46, was appointed as supervisor in August 2013 and as the chairman of the Board of Supervisors in February 2017. Mr. Zhu is primarily responsible for overseeing the Company's operations and financial situation. He was a Director of our Company from October 2011 to August 2013.

Mr. Zhu served as an investment director at Suzhou Industrial Park Asset Management Co., Ltd. (蘇州工業園區資產管理有限公司) from January 2007 to May 2012. He has been the general manager at Shanghai Xinji Venture Capital Co., Ltd. (上海新際創業投資有限責任公司) since June 2010.

Mr. Zhu received a bachelor's degree in geography in July 1994 and a master's degree in economics in June 1997 from East China Normal University (華東師範大學).

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## DIRECTORS, SUPERVISORS AND SENIOR MANAGEMENT

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**Jieyu ZOU (鄒潔羽)**, aged 29, was appointed as a Supervisor on June 14, 2016. Ms. Zou is primarily responsible for overseeing the Company's operations and financial situation.

Ms. Zou joined Lilly Asia Ventures (禮來亞洲基金) in June 2015, where she has served as an investment manager, a senior investment manager and has been a vice president since March 2017. From February 2014 to April 2015, Ms. Zou served as an investment manager at Fosun Hightech Group Co., Ltd. (復星高科技集團有限公司) and was responsible for investment project management. From 2012 to 2014, Ms. Zou served as a research associate at Michael Allen Company, where she was primarily responsible for providing consulting services.

Ms. Zou graduated from Peking University with a bachelor's degree in biology in July 2010. She received a master of public health degree from Yale University in May 2012.

**Zhengfang LIAO (廖正芳)**, aged 34, was appointed as an employee Supervisor on December 15, 2016, primarily responsible for overseeing the Company's operations and financial situation. She joined our Company in June 2010 as an administrative assistant and was appointed as a project manager in June 2013 and the manager of project department in March 2014.

Prior to joining our Company, Ms. Liao served as a project executive at China Foundation for Poverty Alleviation (中國扶貧基金會) from July 2008 to May 2010.

Ms. Liao graduated from Minzu University of China (中央民族大學) with a bachelor's degree in biotechnology in July 2008.

Save as disclosed above, none of our Supervisors has any other directorships in listed companies during the three years immediately prior to the date of this Prospectus.

Save as disclosed in this Prospectus, each of our Supervisors has confirmed that there are no other matters relating to his appointment as a Supervisor that need to be brought to the attention of our Shareholders and there is no other information in relation to his/her appointment which is required to be disclosed pursuant to Rule 13.51(2) of the Listing Rules.

## DIRECTORS, SUPERVISORS AND SENIOR MANAGEMENT

### SENIOR MANAGEMENT

Our senior management is responsible for the day-to-day management of our business. The table below shows certain information in respect of the senior management of our Company:

<u>Name</u>	<u>Age</u>	<u>Position</u>	<u>Date of joining our Company</u>	<u>Date of appointment as senior management</u>	<u>Roles and responsibilities</u>
Xuefeng YU	55	Chief executive officer and general manager	January 13, 2009	January 13, 2009	Overseeing strategic development, overall operation and management and major decision-making
Shou Bai CHAO	56	Chief operating officer and deputy general manager	May 1, 2018	May 1, 2018	Management of daily operations and strategic development
Tao ZHU (朱濤)	46	Chief scientific officer and deputy general manager	January 13, 2009	January 13, 2009	Leading our vaccine research and development
Dongxu QIU	59	Senior vice president and deputy general manager	January 13, 2009	January 13, 2009	Advising on our business and strategic development
Helen Huihua MAO	56	Senior vice president and deputy general manager	January 13, 2009	January 13, 2009	Responsible for international regulatory affairs
Jing WANG (王靖)	38	Vice president for finance and capital markets, secretary of the Board	June 1, 2012	May 21, 2018	Responsible for financial management and investor relations

**Xuefeng YU**, aged 55, is also our chief executive officer and general manager. See the paragraph headed “Executive Directors” for his biography.

**Shou Bai CHAO**, aged 56, is also our chief operating officer and deputy general manager. See the paragraph headed “Executive Directors” for his biography.

**Tao ZHU (朱濤)**, aged 46, is also our chief scientific officer and deputy general manager. See the paragraph headed “Executive Directors” for his biography.

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## DIRECTORS, SUPERVISORS AND SENIOR MANAGEMENT

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**Dongxu QIU**, aged 59, is also our senior vice president and deputy general manager. See the paragraph headed “Executive Directors” for his biography.

**Helen Huihua MAO**, aged 56, is a co-Founder of our Company. Dr. Mao was appointed as senior vice president on January 13, 2009. She is primarily responsible for international regulatory affairs. Dr. Mao served as senior vice president of quality operations and head of quality of our Company and established quality management systems to meet CFDA, WHO, USFDA and EU GMP regulations for vaccine research & development, clinical trial materials manufacturing and commercialization.

Dr. Mao has over 25 years of experiences in pharmaceutical and biologics research & development, technology transfer, quality and regulatory compliances. Prior to joining our Company, she held various positions with increased responsibilities, including development engineer at Albright & Wilson Americas from October 1990 to July 1999, facilities and equipment qualification specialist at Apotex from May 2000 to May 2001, project manager and director of quality at Wyeth Pharmaceuticals, Inc. from July 2001 to April 2005 and director of quality at Endo Pharmaceuticals plc from June 2006 to May 2011. She is also an adjunct professor at Tianjin University of Sciences and Technology.

Dr. Mao graduated from Jiangxi Institute of Technology (江西工學院) (currently known as Nanchang University (“南昌大學”)) with a bachelor’s degree in chemical engineering in July 1982. She obtained a master degree in chemical engineering and a doctorate degree in chemical engineering from Chinese Academy of Sciences (中國科學院) in October 1984 and August 1989 respectively. Dr. Mao conducted her postdoctoral research in the University of Waterloo in Canada from December 1988 to September 1990. Dr. Mao also obtained a master of business administration degree from Villanova University in 2009.

Dr. Mao is the spouse of Dr. Chao, an executive Director, chief operating officer and deputy general manager of our Company.

**Jing WANG (王靖)**, aged 38, was appointed as vice president for finance and capital markets of our Company on May 21, 2018 and has been the secretary of the Board since February 2017. Ms Wang joined our Company in June 2012 and took several positions before she was appointed as vice president. Ms. Wang has led the establishment of our financing, financial management, human resources and administration systems and completed fundraising of approximately RMB743 million in aggregate.

From July 2005 to May 2012, Ms. Wang worked at several subsidiaries of Tasly Holding Group Co., Ltd. (天士力控股集團有限公司), where she was responsible for business development of pharmaceutical products including vaccines in domestic and overseas markets. From March 2002 to June 2005, Ms. Wang worked at Sinochem Tianjin Import and Export Corporation (中化天津進出口公司).

Ms. Wang obtained her master’s degree in engineering from Peking University in January 2011.



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## DIRECTORS, SUPERVISORS AND SENIOR MANAGEMENT

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### JOINT COMPANY SECRETARIES

**Jin CUI (崔進)**, aged 32, was appointed as the joint company secretary of our Company on June 22, 2018 with the appointment to take effect upon Listing. He joined our Company in May 2016 as the executive manager of corporate strategy department, primarily responsible for strategic research, business development and financial management. He has also been the assistant to the chief executive officer of our Company since March 2017 and is responsible for assisting the president of our Company in the daily operation of business strategy.

Mr. Cui served as an executive director of investment banking at Tianjin Branch of JZ Securities Co., Ltd. (九州證券股份有限公司) from August 2015 to April 2016. From June 2012 to July 2015, Mr. Cui worked at Tianjin Equity Exchange (天津股權交易所), where he was responsible for trading management and project management.

Mr. Cui graduated from Tianjin University of Finance and Economics (天津財經大學) with a bachelor's degree in actuarial and risk management in June 2009. He obtained his master's degree in international financial analysis from University of Glasgow in December 2011.

**Ming King CHIU (趙明璟)**, aged 42, was appointed as the joint company secretary of our Company on June 22, 2018 with the appointment to take effect upon Listing.

Mr. Chiu currently serves as an executive director of corporate services of Vistra Corporate Services (HK) Limited. He has over 10 years of experience in the company secretarial field. Mr. Chiu has been an associate member of the Institute of Chartered Secretaries and Administrators and the Hong Kong Institute of Chartered Secretaries ("HKICS") since 2003 and became a fellow member of the HKICS since September 2015. He is also a holder of the Practitioner's Endorsement Certificate issued by HKICS. He has been a member of the Membership Committee and Professional Services Panel of HKICS.

Mr. Chiu obtained a bachelor of arts from University of Toronto in Canada in June 1999 and received a master of arts degree in professional accounting and information systems from City University of Hong Kong in November 2003.

### BOARD COMMITTEES

#### Audit Committee

The Company established the Audit Committee with written terms of reference in compliance with Rule 3.21 of the Listing Rules and the Corporate Governance Code as set out in Appendix 14 to the Listing Rules. The Audit Committee consists of three members, namely Ms. Zhu Xin, Mr. Shiu Kwan Danny Wai and Dr. Zheng Yin. Ms. Zhu Xin has been appointed as the chairwoman of the Audit Committee, and is our independent non-executive Director holding the appropriate professional qualifications. The primary duties of the Audit Committee are to review and supervise the financial reporting process and internal control system of our Company, oversee the audit process, review and oversee the existing and potential risks of our Company and perform other duties and responsibilities as assigned by our Board.



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## **DIRECTORS, SUPERVISORS AND SENIOR MANAGEMENT**

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### **Remuneration and Assessment Committee**

The Company established the Remuneration and Assessment Committee with written terms of reference in compliance with Rule 3.25 of the Listing Rules and the Corporate Governance Code as set out in Appendix 14 to the Listing Rules. The Remuneration and Assessment Committee consists of five members, namely Dr. Pierre Armand Morgon, Dr. Luis Barreto, Ms. Zhu Xin, Dr. Chao and Mr. Liang Lin. Dr. Pierre Armand Morgon has been appointed as the chairman of the Remuneration and Assessment Committee. The primary duties of the Remuneration and Assessment Committee are to establish and review the remuneration policy and structure for the Directors and senior management and make recommendations on employee benefit arrangement.

### **Nomination Committee**

The Company established the Nomination Committee with written terms of reference in compliance with the Corporate Governance Code as set out in Appendix 14 to the Listing Rules. The Nomination Committee consists of five members, namely Dr. Yu, Mr. Shiu Kwan Danny Wai, Dr. Pierre Armand Morgon, Dr. Luis Barreto and Ms. Nisa Bernice Wing-Yu Leung. Dr. Yu has been appointed as the chairman of the Nomination Committee. The primary duties of the Nomination Committee are to make recommendations to our Board on the appointment and removal of Directors of our Company.

### **CODE PROVISION A.2.1 OF THE CORPORATE GOVERNANCE CODE**

In view of Dr. Yu's experience, personal profile and his roles in our Company as mentioned above and that Dr. Yu has assumed the role of chief executive officer and general manager of our Company since our commencement of business, the Board considers it beneficial to the business prospect and operational efficiency of our Company that upon Listing, Dr. Yu acts as the chairman of the Board and continues to act as the chief executive officer and general manager of our Company. While this will constitute a deviation from Code Provision A.2.1 of the Code as set out in Appendix 14 to the Listing Rules, the Board believes that this structure will not impair the balance of power and authority between the Board and the management of the Company, given that: (i) decision to be made by our Board requires approval by at least a majority of our Directors; (ii) Dr. Yu and the other Directors are aware of and undertake to fulfil their fiduciary duties as Directors, which require, among other things, that he acts for the benefit and in the best interests of our Company and will make decisions for our Company accordingly; and (iii) the balance of power and authority is ensured by the operations of the Board which comprises experienced and high caliber individuals who meet regularly to discuss issues affecting the operations of the Company. Moreover, the overall strategic and other key business, financial, and operational policies of our Company are made collectively after thorough discussion at both Board and senior management levels. The Board will continue to review the effectiveness of the corporate governance structure of our Company in order to assess whether separation of the roles of chairman of the Board and chief executive officer is necessary.

### KEY TERMS OF EMPLOYMENT CONTRACTS

We normally enter into (i) an employment contract, and (ii) a confidentiality and non-competition agreement with our senior management members and other key personnel. Below sets forth the key terms of these contracts we enter into with our senior management and other key personnel.

- *Term:* We normally enter into two-or three-year employment contract with our senior management members and other key personnel.
- *No conflict:* During the term of the employment contract, unless expressly agreed by us, the employee shall not engage in any part-time job or activities that create a conflict of interest with us. If the employee breaches this provision, we may choose to terminate the employment contract and hold the employee accountable for all of the loss incurred by us as a result of the breach.

### Confidentiality

- *Scope of confidential information.* The employee shall keep the following information confidential:
  - i. our trade secrets, including information relating to our technology and operations;
  - ii. any trade secrets that the employee gains access to during his/her term of employment as a result of providing service to our customers, including customers who have already entered into a contract with us or customers with whom the contract is under negotiation, including information relating to our technology and operations;
  - iii. any information related to the technology transfer, technology cooperation or technology services;
- *Confidential obligation.* The employee shall not leak, disclose, publish, announce, issue, teach, transfer or make any third party (including employees who are not privy to such trade secrets) aware of any trade secret of ours or our customers in any manner; or utilize such trade secret on his/her own or with any other third party beyond his/her scope of work.
- *Confidential period.* The confidentiality obligation shall continue to be in effect after the departure of the employee, unless such trade secrets become public knowledge.

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## DIRECTORS, SUPERVISORS AND SENIOR MANAGEMENT

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### Non-competition clause

- *Non-competition obligation.* Upon termination or expiration of the employment contract, the employee shall not serve in any capacity (including as an employee, consultant, director or agent) at any company which may compete with us or conducts research, manufacturing or commercialization of any similar product.
- *Term and Scope.* The non-competition obligation is effective globally for two years upon termination or expiration of the employment contract.
- *Non-competition Compensation.* We shall pay the employee a percentage of their monthly average salary in the 12 months immediately preceding the termination or expiration of the employment contract for every month during the non-competition period.

### DIRECTORS' AND SUPERVISORS' REMUNERATION

For the details of the service contracts that we have entered into with our Directors, see the section headed “Appendix VII – Statutory and General Information – C. Further Information about Our Directors and Supervisors – 2. Particulars of Service Contracts” in Appendix VII of the Prospectus.

The aggregate amount of fees, salaries, allowances and retirement benefit scheme contributions we paid to our Directors in respect of the financial years ended December 31, 2016, 2017 and 2018 was RMB1.10 million, RMB1.55 million and RMB5.87 million, respectively. Further information on the remuneration of each Director during the Track Record Period is set out in note 35 in the Accountant’s Report set out in Appendix I to the Prospectus.

The aggregate amount of fees, salaries, allowances and retirement benefit scheme contributions we paid to our Supervisors in respect of the financial years ended December 31, 2016, 2017 and 2018 was RMB0.20 million, RMB0.24 million and RMB0.25 million, respectively.

During the Track Record Period, no remuneration was paid to our Directors or Supervisors by our Company as an inducement to join or upon joining our Company. No compensation was paid or payable to our Directors, past Directors, Supervisors or past Supervisors during the Track Record Period for the loss of office as director or supervisor of any member of our Company or of any other office in connection with the management of the affairs of any member of our Company. None of our Directors or Supervisors waived any emoluments during the Track Record Period.

Under the arrangements currently in force, the aggregate amount of remuneration (excluding any discretionary bonus which may be paid) payable by our Company to our Directors and Supervisors for the financial year ending December 31, 2019 is expected to be approximately RMB5.71 million.

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## DIRECTORS, SUPERVISORS AND SENIOR MANAGEMENT

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For the financial years ended December 31, 2016, 2017 and 2018, the five highest paid individuals of our Company included nil, nil and two Directors, and the aggregate amount of fees, salaries, allowances and retirement benefits scheme contributions we paid to the highest paid individuals who are neither Directors nor chief executives of our Company were RMB4.80 million, RMB6.90 million and RMB4.97 million, respectively.

During the Track Record Period, no remuneration was paid to the five highest paid individuals of our Company as an inducement to join or upon joining our Company. No compensation was paid or payable to such individuals during the Track Record Period for the loss of any office in connection with the management of the affairs of any member of our Company.

### COMPLIANCE ADVISER

We have appointed Somerley Capital Limited as our compliance adviser (the “**Compliance Adviser**”) upon the Listing of our Shares on the Stock Exchange in compliance with Rule 3A.19 of the Listing Rules. Pursuant to Rule 3A.23 of the Listing Rules, the Compliance Adviser will provide advice when consulted by our Company in relation to the followings:

- the publication of any regulatory announcement, circular or financial report;
- where a transaction, which might be a notifiable or connected transaction, is contemplated including share issues and share repurchases;
- where we procure to use the proceeds from the Global Offering in a manner different from that detailed in the Prospectus or where its business activities, developments or results deviate from any forecast, estimate, or other information in the Prospectus; and
- where the Stock Exchange makes an inquiry to our Company regarding unusual movement in the price or trading volume of the Shares of our Company.

The term of the appointment shall commence on the Listing Date and end on the date on which our Company distributes its annual report in respect of its financial results for the first full financial year commencing after the Listing Date and this appointment may be subject to extension by mutual agreement.

## SHARE CAPITAL

As of the Latest Practicable Date, the registered share capital of our Company is RMB160,950,899, divided into 160,950,899 Shares, including 73,254,799 Domestic Shares and 87,696,100 Foreign Shares (including the Shares paid in the form of technology by Dr. Yu, Dr. Qiu and Dr. Mao), with a nominal value of RMB1.00 each.

Assuming the Over-allotment Option is not exercised, the share capital of our Company immediately after the completion of the Global Offering will be as follows:

Number of Shares	Description of Shares	Approximate percentage of total share capital
73,254,799	Domestic Shares <sup>(1)</sup>	33.57%
70,971,900	H Shares to be converted from Unlisted Foreign Shares <sup>(2)</sup>	32.53%
16,724,200	Unlisted Foreign Shares <sup>(3)</sup>	7.66%
57,248,600	H Shares to be issued under the Global Offering	26.24%
<u>218,199,499</u>		<u>100%</u>

*Notes:*

- (1) These Domestic Shares are held by existing Shareholders, Dr. Zhu, Tianjin Qianyi, Tianjin Qianrui, Tianjin Qianzhi, Suzhou Huyanglin, Shanghai Nuoqianjin, Shanghai Li'an, Shanghai Licheng, Tianjin Heyue, Suzhou Litai, Shanghai Huiqiu, Mr. Jianfa Liu, Jiaying Huiguang, Future Industry Investment Fund, Jinshi Yikang, CITIC Investment, Qiming Rongxin, Qiming Rongchuang, Dachen Chuanglian, Gopher Yaoren, Gopher Hongben, Zhongxin Hengxiang, Ms. Xuan Liu and Mr. Jianxi Du, which may be converted into H Shares. Please see the paragraph entitled “– Conversion of Our Unlisted Shares into H Shares – Conversion of Unlisted Shares into H Shares” in this section.
- (2) These H Shares are to be converted from Unlisted Foreign Shares into H Shares and held by existing Shareholders, Dr. Yu, Dr. Qiu, Dr. Mao, LAV Spring, QM29, LAV Bio, Lilly Asia and Mr. Zhongqi Shao. Please see the paragraph entitled “– Conversion of Our Unlisted Shares into H Shares – Conversion of Foreign Shares into H Shares” in this section.
- (3) These Unlisted Foreign Shares are held by existing Shareholders, Dr. Yu, Dr. Qiu and Dr. Mao, which will not be converted into H Shares after the completion of Global offering, and therefore will not be listed on the Stock Exchange. Pursuant to a supplemental agreement entered into between the Founders and the Pre-IPO Investors, if the Company applies for its Shares to be listed and traded on the Stock Exchange, the Founders may apply to CSRC for conversion of no more than 75% of the Foreign Shares held by them into H Shares. However, these Unlisted Foreign Shares may be converted into H Shares in the future, please see “– Conversion of Our Unlisted Shares into H Shares” in this section.

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## SHARE CAPITAL

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### CONVERSION OF OUR UNLISTED SHARES INTO H SHARES

#### Conversion of Foreign Shares into H Shares

Following the completion of the Global Offering and according to the approvals issued by the CSRC on November 2, 2018, the Foreign Shares held by Dr. Yu, Dr. Qiu, Dr. Mao, LAV Spring, QM29, LAV Bio, Lilly Asia and Mr. Zhongqi Shao will be converted into H Shares on a one-for-one basis and listed on Stock Exchange for trading as follows:

Shareholder	Number of Shares Converted to H Shares
Dr. Yu	11,590,183
Dr. Qiu	11,083,517
Dr. Mao	11,924,700
LAV Spring	13,140,000
QM29	13,036,538
LAV Bio	6,218,908
Lilly Asia	3,109,454
Shao Zhongqi	868,600

#### Conversion of Unlisted Shares into H Shares

After the completion of the Global Offering, we have three classes of ordinary shares, namely Domestic Shares, Unlisted Foreign Shares and H Shares. Our Domestic Shares and Unlisted Foreign Shares are unlisted Shares which are currently not listed or traded on any stock exchange. According to the stipulations by the State Council's securities regulatory authority and the Articles of Association, our Unlisted Shares may be converted into H Shares, and such converted shares may be listed or traded on an overseas stock exchange, provided that prior to the conversion and trading of such converted shares any requisite internal approval processes shall have been duly completed and the approval from the relevant PRC regulatory authorities, including the CSRC, shall have been obtained. In addition, such conversion, trading and listing shall in all respects comply with the regulations prescribed by the State Council's securities regulatory authorities and the regulations, requirements and procedures prescribed by the relevant overseas stock exchange.

Approval of the Stock Exchange is required for the listing of such converted shares on the Stock Exchange. Based on the methodology and procedures for the conversion of our Unlisted Shares into H Shares as described in this section, we can apply for the listing of all or any portion of our Unlisted Shares on the Stock Exchange as H Shares in advance of any proposed conversion to ensure that the conversion process can be completed promptly upon notice to the Stock Exchange and delivery of shares for entry on the H Share register. As any listing of additional Shares after our Listing on the Stock Exchange is ordinarily considered by the Stock Exchange to be a purely administrative matter, it does not require such prior application for listing at the time of our Listing in Hong Kong.

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## SHARE CAPITAL

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After all the requisite approvals have been obtained, the following procedure will need to be completed in order to effect the conversion: the relevant Unlisted Shares will be withdrawn from the Domestic Share register and/or the Unlisted Foreign Share register and we will re-register such Shares on our H Share register maintained in Hong Kong and instruct the H Share Registrar to issue H Share certificates. Registration on our H Share register will be conditional on (a) the H Share Registrar lodging with the Stock Exchange a letter confirming the proper entry of the relevant H Shares on the H Share register and the due dispatch of H Share certificates and (b) the admission of the H Shares to trade on the Stock Exchange in compliance with the Listing Rules, the General Rules of CCASS and the CCASS Operational Procedures in force from time to time. Until the converted shares are re-registered on our H Share register, such Shares would not be listed as H Shares.

No Shareholder voting by class is required for the listing and trading of the converted shares on an overseas stock exchange. Any application for listing of the converted shares on the Stock Exchange after our initial listing is subject to prior notification by way of announcement to inform Shareholders and the public of any proposed transfer.

In view of the above, our PRC Legal Adviser has advised us that the Articles of Association of our Company does not contradict any PRC laws and regulations in the conversion of Unlisted Shares.

### SHARE CLASSES

Upon the completion of Global Offering and after the Foreign Shares converted into H Shares as approved by CSRC, the Shares of our Company will be divided into three classes: Domestic Shares, Unlisted Foreign Shares and H Shares. The three classes of Shares are all ordinary shares in the share capital of our Company. H Shares may only be subscribed for and traded in Hong Kong dollars. Apart from certain qualified domestic institutional investors in the PRC, the qualified PRC investors or other persons who are entitled to hold our H Shares pursuant to relevant PRC laws and regulations or upon approvals of any competent authorities, H Shares generally cannot be subscribed for by or traded between legal or natural persons of the PRC. We must pay all dividends in respect of H Shares in Hong Kong dollars, all dividends in respect of Domestic Shares in RMB, and all dividends in respect of all Unlisted Foreign Shares in foreign currency except for RMB.

Except as described in this Prospectus and in relation to the dispatch of notices and financial reports to our Shareholders, dispute resolution, registration of Shares in different parts of our register of Shareholders, methods of share transfer and the appointment of dividend receiving agents, which are all provided for in the Articles of Association and summarized in Appendix VI to this Prospectus, our Unlisted Shares and H Shares will rank equally with each other in all respects and, in particular, will rank equally for all dividends or distributions declared, paid or made after the date of this Prospectus (save for the dividends payment in RMB for Domestic Shares, in foreign currency except for RMB for Unlisted Foreign Shares and in Hong Kong dollars for H Shares). However, the transfer of Unlisted Shares is subject to such restrictions as PRC laws may impose from time to time. Save for the Global Offering,

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## SHARE CAPITAL

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we do not propose to carry out any public or private issue or to place securities simultaneously with the Global Offering or within the next six months from the Listing Date. We have not approved any share issue plan other than the Global Offering.

### **TRANSFER OF SHARES ISSUED PRIOR TO LISTING DATE**

The PRC Company Law provides that in relation to the public offering of a company, the shares issued prior to the public offering shall not be transferred within a period of one year from the date on which the publicly offered shares are listed on any stock exchange. Accordingly, Shares issued by our Company prior to the Listing Date shall be subject to this statutory restriction and not be transferred within a period of one year from the Listing Date.

Directors, Supervisors and senior management shall notify the Company of the Shares they hold and any changes therein. During their respective tenure of office, any Shares transferred by any of the Company's Directors, Supervisors and senior management in any year shall not exceed 25% of the relevant individual's total Shares in the Company. Shares held by any Director, Supervisor or senior management shall not be transferred within a period of one year from the Listing Date.

### **REGISTRATION OF SHARES NOT LISTED ON THE OVERSEAS STOCK EXCHANGE**

According to the Notice of Centralized Registration and Deposit of Non-overseas Listed Shares of Companies Listed on an Overseas Stock Exchange (《關於境外上市公司非境外上市股份集中登記存管有關事宜的通知》) issued by the CSRC, an overseas listed company is required to register its shares that are not listed on the overseas stock exchange with CSDCC within 15 Business Days upon listing and provide a written report to the CSRC regarding the centralized registration and deposit of its unlisted shares as well as the current offering and listing of shares.

### **CIRCUMSTANCES UNDER WHICH GENERAL MEETING AND CLASS MEETING ARE REQUIRED**

For details of circumstances under which our Shareholders' general meeting and class Shareholders' meeting are required, please see "5. Voting Rights" and "8. Notice and Agenda of General Shareholders' Meetings" under "Appendix VI – Summary of the Articles of Association" in this Prospectus.



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## SUBSTANTIAL SHAREHOLDERS

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So far as our Directors are aware, assuming the Over-allotment Option is not exercised, the following persons will, immediately following the completion of the Global Offering, have interests or short positions in Shares or underlying Shares which would be required to be disclosed to us and the Stock Exchange under the provisions of Divisions 2 and 3 of Part XV of the SFO, or, who are, directly or indirectly interested in 10% or more of the nominal value of any class of our share capital carrying rights to vote in all circumstances at general meetings of our Company:

<u>Name of Shareholder</u>	<u>Nature of Interest</u>	<u>Number of Shares</u>	<u>Approximate percentage of shareholding in the total share capital</u>
Dr. Yu	Beneficial owner, Interest of a party to an agreement regarding interest in the Company <sup>(1)</sup>	34,598,400 H Shares 16,724,200 Unlisted Foreign Shares  17,874,200 Domestic Shares	31.71%
		69,196,800 Shares	
Dr. Zhu	Beneficial owner, Interest of a party to an agreement regarding interest in the Company <sup>(1)</sup>	34,598,400 H Shares 16,724,200 Unlisted Foreign Shares  17,874,200 Domestic Shares	35.37%
	Interest in a controlled corporation <sup>(2)</sup>	7,981,225 Domestic Shares	
		77,178,025 Shares	
Dr. Qiu	Beneficial owner, Interest of a party to an agreement regarding interest in the Company <sup>(1)</sup>	34,598,400 H Shares 16,724,200 Unlisted Foreign Shares  17,874,200 Domestic Shares	31.71%
		69,196,800 Shares	

## SUBSTANTIAL SHAREHOLDERS

Name of Shareholder	Nature of Interest	Number of Shares	Approximate percentage of shareholding in the total share capital
Dr. Mao	Beneficial owner, Interest of a party to an agreement regarding interest in the Company <sup>(1)</sup>	34,598,400 H Shares 16,724,200 Unlisted Foreign Shares 17,874,200 Domestic Shares	31.71%
LAV <sup>(3)</sup>	Interest in a controlled corporation	22,468,362 H Shares 7,709,454 Domestic Shares	15.47%
LAV Spring	Beneficial owner	13,140,000 H Shares	6.02%
QM29	Beneficial owner	13,036,538 H Shares	5.97%
Qiming Venture Partners IV, L.P. <sup>(4)</sup>	Interest in a controlled corporation	13,036,538 H Shares	5.97%
OrbiMed <sup>(5)</sup>	Interest in a controlled corporation	8,918,200 H Shares	4.09%
Future Industry Investment <sup>(6)</sup>	Beneficial owner	8,855,336 Domestic Shares	4.06%
Shanghai Li'an <sup>(7)</sup>	Beneficial owner	4,600,000 Domestic Shares	2.11%

*Notes:*

- (1) Pursuant to the Concert Party Agreement. See the section headed “History and Development” for details.
- (2) Dr. Zhu is the sole general partner of Tianjin Qianyi, Tianjin Qianrui and Tianjin Qianzhi, which will hold 1.59%, 1.51% and 0.55% of the issued share capital of our Company, respectively. Therefore, Dr. Zhu is deemed to be interested in the Shares held by Tianjin Qianyi, Tianjin Qianrui and Tianjin Qianzhi, all of which are Domestic Shares.
- (3) LAV, through the equity interest held by LAV Spring, LAV Bio, Lilly Asia, Shanghai Li'an and Suzhou Litai in our Company, taking into account LAV Amber Limited's subscription for an additional 3,567,200 Shares pursuant to the cornerstone investment agreement as further described under the section headed “Cornerstone Investors” in this Prospectus, will be entitled to control the exercise of 15.47% of the voting power at the general meeting of the Company. Immediately following the completion of the Global Offering, LAV Spring, LAV Bio, Lilly Asia, Shanghai Li'an, Suzhou Litai and LAV Amber Limited will hold 13,140,000 H Shares, 6,218,908 H Shares, 3,109,454 H Shares, 4,600,000 Domestic Shares, 3,109,454 Domestic Shares and 3,567,200 H Shares of our Company, respectively.
- (4) Qiming Venture Partners IV, L.P. holds 96.94% of the issued share capital of QM29. Therefore, Qiming Venture Partners IV, L.P. is deemed to be interested in the Shares held by QM29.

## SUBSTANTIAL SHAREHOLDERS

- (5) Taking into account the 6,917,000 H Shares and 2,001,200 H Shares (assuming an Offer Price of HK\$22.00, being the high-end of the indicative Offer Price range) to be subscribed for by Worldwide Healthcare Trust PLC and The Biotech Growth Trust PLC respectively, pursuant to the cornerstone investment agreement as further described under the section headed “Cornerstone Investors” in this Prospectus, OrbiMed Capital LLC will be interested in approximately 6.96% of H Shares upon Listing (assuming the Over-allotment Option is not exercised).
- (6) Future Industry Investment will be in a position to exercise approximately 9.84% voting rights in class meeting for Domestic Shares and Unlisted Foreign Shares upon Listing (assuming the Over-allotment Option is not exercised).
- (7) Shanghai Li'an will be in a position to exercise approximately 5.11% voting rights in class meeting for Domestic Shares and Unlisted Foreign Shares upon Listing (assuming the Over-allotment Option is not exercised).

The following table sets forth a summary of our Shareholders who would be in a position to exercise over 5% voting rights in class meeting for H Shares upon Listing (assuming the Over-allotment Option is not exercised):

Name of Shareholder	Nature of Interest	Number of H Shares	Approximate percentage of voting rights in the class meeting for H Shares
Dr. Yu	Beneficial owner, Interest of a party to an agreement regarding interest in the Company <sup>(1)</sup>	34,598,400 H Shares	26.98%
Dr. Zhu	Interest of a party to an agreement regarding interest in the Company <sup>(1)</sup>	34,598,400 H Shares	26.98%
Dr. Qiu	Beneficial owner, Interest of a party to an agreement regarding interest in the Company <sup>(1)</sup>	34,598,400 H Shares	26.98%
Dr. Mao	Beneficial owner, Interest of a party to an agreement regarding interest in the Company <sup>(1)</sup>	34,598,400 H Shares	26.98%
LAV <sup>(2)</sup>	Interest in a controlled corporation	26,035,562 H Shares	20.31%
LAV Spring	Beneficial owner	13,140,000 H Shares	10.25%
QM29	Beneficial owner	13,036,538 H Shares	10.17%
Qiming Venture Partners IV, L.P. <sup>(3)</sup>	Interest in a controlled corporation	13,036,538 H Shares	10.17%
OrbiMed <sup>(4)</sup>	Interest in a controlled corporation	8,918,200 H Shares	6.96%

*Notes:*

- (1) Pursuant to the Concert Party Agreement. See the section headed “History and Development” for details.

## SUBSTANTIAL SHAREHOLDERS

- (2) LAV, through the equity interest held by LAV Spring, LAV Bio and Lilly Asia in our Company, taking into account LAV Amber Limited's subscription for an additional 3,567,200 Shares pursuant to the cornerstone investment agreement as further described under the section headed "Cornerstone Investors" in this Prospectus, will be entitled to control the exercise of 20.31% of the voting power at the class meeting for H Shares of the Company. Immediately following the completion of the Global Offering, LAV Spring, LAV Bio, Lilly Asia and LAV Amber Limited will hold 13,140,000 H Shares, 6,218,908 H Shares, 3,109,454 H Shares and 3,567,200 H Shares of our Company, respectively.
- (3) Qiming Venture Partners IV, L.P. holds 96.94% of the issued share capital of QM29. Therefore, Qiming Venture Partners IV, L.P. is deemed to be interested in the Shares held by QM29.
- (4) Taking into account the 6,917,000 H Shares and 2,001,200 H Shares (assuming an Offer Price of HK\$22.00, being the high-end of the indicative Offer Price range) to be subscribed for by Worldwide Healthcare Trust PLC and The Biotech Growth Trust PLC respectively, pursuant to the cornerstone investment agreement as further described under the section headed "Cornerstone Investors" in this Prospectus.

The following table sets forth a summary of our Shareholders who would be in a position to exercise over 5% voting rights in class meeting for Domestic Shares and Unlisted Foreign Shares upon Listing (assuming the Over-allotment Option is not exercised):

Name of Shareholder	Nature of Interest	Number of Domestic Shares and Unlisted Foreign Shares	Approximate percentage of voting rights in the class meeting for Domestic Shares and Unlisted Foreign Shares
Dr. Yu	Beneficial owner, Interest of a party to an agreement regarding interest in the Company <sup>(1)</sup>	16,724,200 Unlisted Foreign Shares  17,874,200 Domestic Shares <hr/> 34,598,400 Shares	38.45%
Dr. Zhu	Beneficial owner, Interest of a party to an agreement regarding interest in the Company <sup>(1)</sup>	16,724,200 Unlisted Foreign Shares  17,874,200 Domestic Shares	47.32%
	Interest in a controlled corporation <sup>(2)</sup>	7,981,225 Domestic Shares <hr/> 42,579,625 Shares	
Dr. Qiu	Beneficial owner, Interest of a party to an agreement regarding interest in the Company <sup>(1)</sup>	16,724,200 Unlisted Foreign Shares  17,874,200 Domestic Shares <hr/> 34,598,400 Shares	38.45%

## SUBSTANTIAL SHAREHOLDERS

Name of Shareholder	Nature of Interest	Number of Domestic Shares and Unlisted Foreign Shares	Approximate percentage of voting rights in the class meeting for Domestic Shares and Unlisted Foreign Shares
Dr. Mao	Beneficial owner, Interest of a party to an agreement regarding interest in the Company <sup>(1)</sup>	16,724,200 Unlisted Foreign Shares  17,874,200 Domestic Shares  34,598,400 Shares	38.45%
Future Industry Investment	Beneficial owner	8,855,336 Domestic Shares	9.84%
LAV	Interest in a controlled corporation	7,709,454 Domestic Shares	8.57%
Shanghai Li'an	Beneficial owner	4,600,000 Domestic Shares	5.11%

*Notes:*

- (1) Pursuant to the Concert Party Agreement. See the section headed “History and Development” for details.
- (2) Dr. Zhu is the sole general partner of Tianjin Qianyi, Tianjin Qianrui and Tianjin Qianzhi, which will hold 1.59%, 1.51% and 0.55% of the issued share capital of our Company, respectively. Therefore, Dr. Zhu is deemed to be interested in the Shares held by Tianjin Qianyi, Tianjin Qianrui and Tianjin Qianzhi, all of which are Domestic Shares.

Save as disclosed herein, our Directors are not aware of any persons who will, immediately following completion of the Global Offering (assuming the Over-allotment Option is not exercised), have interests or short positions in Shares or underlying Shares which would fall to be disclosed under the provisions of Divisions 2 and 3 of Part XV of the SFO or, will be, directly or indirectly, interested in 10% or more of the issued voting shares of our Company.

## CORNERSTONE INVESTORS

We have entered into cornerstone investment agreements (each a “**Cornerstone Investment Agreement**”, and together the “**Cornerstone Investment Agreements**”) with the cornerstone investors set out below (each a “**Cornerstone Investor**”, and together, the “**Cornerstone Investors**”), pursuant to which LAV Amber Limited has agreed to subscribe for 3,567,200 Offer Shares at the Offer Price, and OrbiMed and Tsinlien Zhuo Rui (as defined below) have agreed to subscribe for such number of Offer Shares (rounded down to the nearest whole board lot) which may be purchased for an aggregate amount of US\$35,000,000 (equivalent to approximately HK\$274,683,500) at the Offer Price (together, the “**Cornerstone Placing**”).

Set out below is the aggregate number of Offer Shares, and the corresponding percentage to our Company’s total issued share capital under the Cornerstone Placing:

		Assuming the Over-allotment Option is not exercised		Assuming the Over-allotment Option is exercised in full	
		Percentage to our total issued share capital immediately upon completion of the Global Offering	Percentage to the total number of Offer Shares	Percentage to our total issued share capital immediately upon completion of the Global Offering	Percentage to the total number of Offer Shares
Based on the Offer Price of:	Total number of Offer Shares to be subscribed by the Cornerstone Investors	(approximate)	(approximate)	(approximate)	(approximate)

**HK\$21.00 (being the low-end of the indicative Offer Price range)**

LAV Amber Limited	3,567,200	1.63%	6.23%	1.60%	5.78%
OrbiMed	9,342,800	4.28%	16.32%	4.20%	15.14%
Tsinlien Zhuo Rui	3,737,000	1.71%	6.53%	1.68%	6.06%
<b>Total</b>	<b>16,647,000</b>	<b>7.63%</b>	<b>29.08%</b>	<b>7.48%</b>	<b>26.98%</b>

**HK\$21.50 (being the mid-point of the indicative Offer Price range)**

LAV Amber Limited	3,567,200	1.63%	6.23%	1.60%	5.78%
OrbiMed	9,125,600	4.18%	15.94%	4.10%	14.79%
Tsinlien Zhuo Rui	3,650,200	1.67%	6.38%	1.64%	5.92%
<b>Total</b>	<b>16,343,000</b>	<b>7.49%</b>	<b>28.55%</b>	<b>7.34%</b>	<b>26.49%</b>

**HK\$22.00 (being the high-end of the indicative Offer Price range)**

LAV Amber Limited	3,567,200	1.63%	6.23%	1.60%	5.78%
OrbiMed	8,918,200	4.09%	15.58%	4.01%	14.45%
Tsinlien Zhuo Rui	3,567,200	1.63%	6.23%	1.60%	5.78%
<b>Total</b>	<b>16,052,600</b>	<b>7.36%</b>	<b>28.04%</b>	<b>7.21%</b>	<b>26.02%</b>

One of the Cornerstone Investors, namely LAV Amber Limited, is wholly owned by LAV Biosciences Fund V, L.P. LAV Biosciences Fund V, L.P. is a Cayman exempted limited partnership funds managed by LAV Global Management Company Limited. Therefore, LAV Amber Limited is affiliated with LAV (an existing Shareholder of the Company). LAV Amber Limited has been permitted to participate in the Cornerstone Placing pursuant to paragraph 5.2 of Stock Exchange Guidance letter HKEX-GL92-18 and the waivers and consent in respect of the subscription as further described in the section headed “Waivers from Strict Compliance with the Listing Rules”. Except for LAV Amber Limited, to the best knowledge of our

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## CORNERSTONE INVESTORS

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Company, each of the Cornerstone Investors is an Independent Third Party and is making independent investment decisions, and none of the Cornerstone Investors is an existing shareholder of our Company or its close associate. Details of the allocations to each of the Cornerstone Investors will be disclosed in the allotment results announcement to be published by the Company on or around March 27, 2019.

The Cornerstone Placing will form part of the International Offering, and the Cornerstone Investors will not acquire any Offer Shares under the Global Offering other than pursuant to the Cornerstone Investment Agreement. The Offer Shares to be subscribed by the Cornerstone Investor will rank *pari passu* in all respect with the fully paid Shares in issue. Immediately following the completion of the Global Offering, save as the fact that (i) Mr. Liang LIN, a non-executive Director of the Company was nominated by LAV and appointed on August 6, 2013, and (ii) LAV is an existing Shareholder of the Company, none of the Cornerstone Investors will have any Board representation in the Company or become a substantial shareholder of the Company. The Cornerstone Investors do not have any preferential rights in the Cornerstone Investment Agreement compared with other investors.

The total number of Offer Shares to be subscribed by the Cornerstone Investors pursuant to the Cornerstone Placing may be affected by reallocation of the Offer Shares between the International Offering and the Hong Kong Public Offering in the event of over-subscription under the Hong Kong Public Offering as described in the section headed “Structure of the Global Offering – The Hong Kong Public Offering – Reallocation.”

Details of the actual number of the Offer Shares to be allocated to the Cornerstone Investors will be disclosed in the allotment results announcement to be issued by the Company on or around March 27, 2019.

### THE CORNERSTONE INVESTORS

The information about the Cornerstone Investors set forth below has been provided by the Cornerstone Investors in connection with the Cornerstone Placing.

#### LAV Amber Limited (“LAV Amber”)

Pursuant to the cornerstone investment agreement entered into between the Company, Morgan Stanley Asia Limited, CLSA Capital Markets Limited, CLSA Limited and LAV Amber dated March 14, 2019, LAV Amber has agreed to subscribe for 3,567,200 Offer Shares at the Offer Price, representing approximately 6.23% of the Offer Shares pursuant to the Global Offering and approximately 1.63% of our total issued share capital immediately upon completion of the Global Offering (assuming the Over-allotment Option is not exercised).

LAV Amber is an investment holding company established in British Virgin Islands, which is wholly owned by LAV Biosciences Fund V, L.P.. LAV Biosciences Fund V, L.P. is a Cayman exempted limited partnership fund managed by LAV Global Management Company Limited and its affiliates. Therefore, LAV Amber is affiliated with LAV. LAV is a leading Asia-based life science investment firm with portfolios covering all major sectors of the biomedical and healthcare industry including biopharmaceuticals, medical devices, diagnostics

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## CORNERSTONE INVESTORS

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and healthcare services. Founded in 2008, LAV is one of the biomedical venture firms with the longest histories in China. To date, LAV manages committed capital of over US\$1.97 billion, and has invested in over 70 portfolio companies worldwide. Currently, LAV is managed by a team of professionals with substantial biomedical domain expertise, as well as extensive investing experiences in China. LAV has offices in Shanghai, Hong Kong and California, USA. Upon completion of the Global Offering (assuming the Over-allotment Option is not exercised), LAV will collectively hold 15.47% of our Shares.

### **OrbiMed**

Pursuant to the cornerstone investment agreement entered into between the Company, Morgan Stanley Asia Limited, CLSA Capital Markets Limited, CLSA Limited, Worldwide Healthcare Trust PLC (“**Worldwide Healthcare**”) and The Biotech Growth Trust PLC (“**Biotech Growth**”) dated March 14, 2019, Worldwide Healthcare and Biotech Growth have agreed to subscribe for such number of Offer Shares (rounded down to the nearest whole board lot) which may be purchased for an aggregate amount of US\$19,390,000 (equivalent to approximately HK\$152,174,659) and US\$5,610,000 (equivalent to approximately HK\$44,027,841), respectively, at the Offer Price.

Worldwide Healthcare and Biotech Growth are closed-end funds incorporated in the United Kingdom and whose portfolio is managed by OrbiMed Capital LLC (“**OrbiMed**”). OrbiMed is an investment firm dedicated exclusively to the healthcare sector. OrbiMed invests globally across a spectrum of healthcare companies, from venture capital start-ups to large multinational companies. OrbiMed manages a series of private equity funds, public equity funds, royalty/debt funds and other investment vehicles.

### **Tsinlien Zhuo Rui Investment Co., Limited (津聯卓睿投資有限公司) (“Tsinlien Zhuo Rui”)**

Pursuant to the cornerstone investment agreement entered into between the Company, Morgan Stanley Asia Limited, CLSA Capital Markets Limited, CLSA Limited, ICBC International Capital Limited and Tsinlien Zhuo Rui dated March 14, 2019, Tsinlien Zhuo Rui has agreed to subscribe for such number of Offer Shares (rounded down to the nearest whole board lot) which may be purchased for an aggregate amount of US\$10,000,000 (equivalent to approximately HK\$78,481,000) at the Offer Price.

Tsinlien Zhuo Rui is an investment consulting and management company established in Hong Kong, which is wholly owned by Tianjin Tsinlien Haihe State-owned Enterprise Reform Innovation and Development Fund Partnership (Limited Partnership) (天津津聯海河國有企業改革創新發展基金合伙企業(有限合伙)) (“**Tsinlien Haihe**”). Tsinlien Haihe was found with a fund size of RMB10 billion in August 2018 by Tianjin Bohai State-owned Assets Administration Co., Ltd., Tianjin Tsinlien Guoxin Investment Management Co., Ltd. and Tianjin Haihe River Industry Fund Partnership (Limited Partnership) and is managed by Tianjin Tsinlien Guoxin Investment Management Co., Ltd. Tsinlien Haihe focuses on investments in rising industries including artificial intelligence, new energy and new materials, biomedicine and health, high-end equipment manufacturing, new generation information



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## CORNERSTONE INVESTORS

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technology, aerospace, petrochemical, energy conservation and environmental protection, internet, offshore engineering equipment, UHV power transmission and transformation, high-end CNC machine tools, integrated circuits, high-performance server and domestic databases.

### CLOSING CONDITIONS

The obligation of the Cornerstone Investors to acquire the Offer Shares under the Cornerstone Investment Agreements is subject to, among other things, the following closing conditions:

- (1) the Hong Kong Underwriting Agreement and International Underwriting Agreement being entered into and having become effective and unconditional (in accordance with their respective original terms or as subsequently waived or varied by agreement of the parties thereto) by no later than the time and date as specified in these underwriting agreements;
- (2) neither of the aforesaid underwriting agreements having been terminated;
- (3) the Listing Committee having granted the listing of, and permission to deal in, the H Shares as well as other applicable waivers and approvals and such approval, permission or waiver having not been revoked prior to the commencement of dealings in the H Shares on the Hong Kong Stock Exchange;
- (4) the Offer Price having been agreed according to underwriting agreements and price determination agreement to be signed among the parties thereto in connection with the Global Offering;
- (5) no laws shall have been enacted or promulgated by any governmental authority which prohibits the consummation of the transactions contemplated in the Hong Kong Public Offering, the International Offering or herein and there shall be no orders or injunctions from a court of competent jurisdiction in effect precluding or prohibiting consummation of such transactions;
- (6) the respective representations, warranties, acknowledgements, undertakings and confirmations of the Cornerstone Investors under the Cornerstone Investment Agreements are (as of the date of the Cornerstone Investment Agreements) and will be (as of the Listing Date) accurate and true in all material respects and not misleading and that there is no material breach of the Cornerstone Investment Agreements on the part of the Cornerstone Investors; and
- (7) the respective representations, warranties, acknowledgements, undertakings and confirmations of the Company under the Cornerstone Investment Agreements are (as of the date of the Cornerstone Investment Agreements) and will be (as of the Listing Date) accurate and true in all material respects and not misleading and that there is no material breach of the Cornerstone Investment Agreements on the part of the Company.

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## CORNERSTONE INVESTORS

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### RESTRICTIONS ON THE CORNERSTONE INVESTORS

Each of the Cornerstone Investors has agreed that it will not, whether directly or indirectly, at any time during the period of six months following the Listing Date (the “**Lock-up Period**”), dispose of any of the Offer Shares they have purchased pursuant to the relevant Cornerstone Investment Agreements, save for certain limited circumstances, such as transfers to any of its wholly-owned subsidiaries who will be bound by the same obligations of such Cornerstone Investor, including the Lock-up Period restriction.

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## FINANCIAL INFORMATION

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*You should read the following discussion and analysis in conjunction with our audited consolidated financial information included in “Appendix I – Accountant’s Report” to this Prospectus, together with accompanying notes. Our consolidated financial information has been prepared in accordance with HKFRSs, which may differ in material aspects from generally accepted accounting principles in other jurisdictions. You should read the entire Accountant’s Report and not merely rely on the information contained in this section.*

*The following discussion and analysis contain forward-looking statements that reflect the current views with respect to future events and financial performance that involve risks and uncertainties. These statements are based on assumptions and analysis made by us in light of our experience and perception of historical events, current conditions and expected future developments, as well as other factors we believe are appropriate under the circumstances. However, whether the actual outcome and developments will meet our expectations and predictions depends on a number of risks and uncertainties over which we do not have control. In evaluating our business, you should carefully consider the information provided in the section headed “Risk Factors” in this Prospectus.*

### OVERVIEW

CanSino’s mission is to develop, manufacture and commercialize high quality, innovative and affordable vaccines. We are developing 15 vaccine candidates for 12 disease areas. In addition to our three near-commercial assets covering meningococcal diseases and Ebola virus disease, we have six vaccine candidates in clinical trial stage or CTA stage. We also have six pre-clinical vaccine candidates, including one combination vaccine candidate. For more information, please refer to “Business – Our Vaccine Pipeline.”

### KEY FACTORS AFFECTING OUR RESULTS OF OPERATIONS

We believe that key factors affecting our results of operations, financial position and cash flow include the following:

- *Commercialization of our vaccine candidates.* In 2016, 2017 and 2018, we had net losses of RMB49.9 million, RMB64.5 million and RMB138.3 million, respectively. In addition, we filed the NDA for our MCV2 candidate in January 2019, and expect to file the NDA for our MCV4 candidate in 2019. We expect our revenue for the next few years to be generated mainly from our sales of these near-commercial assets and other vaccine candidates in our pipeline.

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## FINANCIAL INFORMATION

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- *Research and development expenses.* In 2016, 2017 and 2018, we incurred research and development expenses of RMB51.7 million, RMB68.1 million and RMB113.6 million, respectively. Our research and development expenses continuously increased during the Track Record Period, primarily due to our increased expenses as we conducted more clinical trials and expanded our research and development team. Our research and development expenses are affected by the timing and advancement of our vaccine development programs. Up to December 31, 2018, we capitalized costs of RMB31.6 million for the clinical trial expenses for our MCV candidates.
- *Funding for our operations.* During the Track Record Period, we devoted substantially all of our resources on the development of vaccines. We funded our operations primarily through investments from Pre-IPO Investors and bank borrowings. Going forward, we expect to fund our product development in part with revenue generated from our sale of products. Our ability to commercialize our products and generate revenue may have an impact on our cash flow plan.

### BASIS OF PREPARATION

We were incorporated in the PRC on January 13, 2009 and was converted into a joint stock company with limited liability in February 2017. For details, see “History and Development.” Our consolidated financial statements have been prepared in accordance with HKFRSs issued by the HKICPA. The consolidated financial statements have been prepared under the historical cost convention except for certain financial assets which have been measured at fair value. Our consolidated financial statements include the financial results of Tianjin Qianyi Enterprise Management Partnership (Limited Partnership), Tianjin Qianrui Enterprise Management Partnership (Limited Partnership) and Tianjin Qianzhi Enterprise Management Partnership (Limited Partnership), our employee incentive platforms, as we have power to govern their activities and derive benefits from the contributions of the eligible employees who are awarded with the shares under the employee incentive platforms.

### ACCOUNTING POLICIES AND CRITICAL ESTIMATES AND JUDGEMENTS

Our significant accounting policies and critical estimates and judgements, which are important for an understanding of our financial condition and results of operations, are set forth in detail in Notes 2 and 4 to the Accountant’s Report set out in Appendix I of this Prospectus.

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## FINANCIAL INFORMATION

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### Significant Accounting Policies

#### *Intangible Assets – Research and Development*

We incur significant costs and efforts on research and development activities, which include expenditures on vaccine products. Research expenditures are charged to the profit or loss as an expense in the period the expenditure is incurred. Development costs are recognised as assets if they can be directly attributable to a newly developed vaccine product and all the following can be demonstrated:

- (i) The technical feasibility to complete the development project so that it will be available for use or sale;
- (ii) The intention to complete the development project to use or sell the vaccine product;
- (iii) The ability to use or sell the vaccine product;
- (iv) The manner in which the development project will generate probable future economic benefits for us;
- (v) The availability of adequate technical, financial and other resources to complete the development project and use or sell the vaccine product; and
- (vi) The expenditure attributable to the asset during its development can be reliably measured.

The cost of an internally generated intangible asset is the sum of the expenditure incurred from the date the asset meets the recognition criteria above to the date when it is available for use. The costs capitalised in connection with the intangible asset include costs of materials and services used or consumed, employee costs incurred in the creation of the asset and an appropriate portion of relevant overheads.

Capitalised development costs are amortised using the straight-line method over the life of the related vaccine product. Amortization shall begin when the asset is available for use.

Development expenditures not satisfying the above criteria are recognised in the profit or loss as incurred.

### Critical Estimates and Judgements

Critical accounting judgements and estimates are those that are most important to the portrayal of our financial conditions and results of operations and require our management to make judgements, estimates and assumptions that affect the reported amounts of revenues, expenses, the assets and liabilities and their accompanying disclosures, which could result in the need to make estimates of the effect of matters that are inherently uncertain and may change in subsequent periods.

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## FINANCIAL INFORMATION

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We continually evaluate these estimates based on our own historical experience, knowledge and assessment of current business and other conditions, our expectations regarding the future based on available information and our best assumptions, which together form our basis for making judgments about matters that are not readily apparent from other sources. Since the use of estimates is an integral component of the financial reporting process, our actual results could differ from those estimates and expectations. Some of our accounting policies require a higher degree of judgment than others in their application. We believe the following critical accounting policies involve the most significant estimates and judgments used in the preparation of our financial statements.

### ***Intangible Assets Not Available for Use***

#### *Capitalization*

Certain clinical trial expenses incurred on development projects are recognized as intangible assets when it is probable that the projects will be successful considering the criteria set out in “– Intangible Assets – Research and Development” in Note 2.7 to the Accountant’s Report set out in Appendix I to this Prospectus. Our development activities are tracked by our finance department which combines the evidence from our research and development center, clinical and marketing department and documented to support the basis of determining if and when the criteria were met.

#### *Impairment*

We are required to test intangible development assets not available for use on an annual basis. Other non-financial assets are tested whenever events or changes in circumstances indicate that the carrying amount of those assets exceeds its recoverable amount. The recoverable amount is determined based on the higher of fair value less cost to sell and value in use.

Determination of the value in use is an area involving management judgement in order to assess whether the carrying value of the intangible development assets not available for use can be supported by the net present value of future cash flows. In calculating the net present value of the future cash flows, certain assumptions are required to be made in respect of highly uncertain matters including management’s expectations of (i) timing of commercialization, productivity and market size; (ii) revenue compound growth rate; (iii) costs and operating expenses; and (iv) the selection of discount rates to reflect the risks involved.

### ***Recognition of Share-based Compensation Expenses***

As mentioned in Note 24 to the Accountant’s Report in Appendix I, equity-settled share-based compensation plans were granted to our employees. Our Directors have used the discounted cash flow method to determine the total fair value of the deferred shares granted to employees, which is to be expensed over the vesting period. Significant estimate on assumptions, such as the discount rate, risk-free interests rate, expected volatility, estimation of vesting period and dividend yield, is required to be made by our Directors in applying the discounted cash flow method.

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## FINANCIAL INFORMATION

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### *Current and Deferred Income Taxes*

There are many transactions and events for which the ultimate tax determination is uncertain during the ordinary course of business. Significant judgment is required from us in determining the provision for income taxes. Where the final tax outcome of these matters is different from the amounts that were initially recorded, such differences will impact the income tax and deferred tax provisions in the period in which such determination is made.

We recognize deferred tax assets based on estimates that it is probable to generate sufficient taxable profits in the foreseeable future against which the deductible losses will be utilized. The recognition of deferred tax assets mainly involved management's judgments and estimations about the timing and the amount of taxable profits of the companies who had tax losses. During the Track Record Period, deferred tax assets have not been recognised in respect of these accumulated tax losses and other deductible temporary differences based on the fact that we had several vaccine candidates and most of them were in earlier research and development stage and the future taxable profits would be uncertain.

### *Adoption of HKFRS 9*

HKFRS 9 "Financial Instruments" replaced the previous standard HKAS 39 "Financial Instruments" and related interpretations. The standard is effective for annual periods beginning on or after January 1, 2018 and earlier application is permitted. We have consistently applied HKFRS 9 to our financial statements during the Track Record Period. We have assessed the effects of adopting HKFRS 9 to our financial statements and identified the following areas that have been affected:

- *Classification and measurement of financial instruments.* We assessed the business models and contractual terms of cash flows applying to the financial assets held by us during the Track Record Period under HKFRS 9. The classification of our financial instruments under HKFRS 9 and HKAS 39 are consistent. Moreover, our financial assets measured at fair value through profit or loss or amortized cost under HKAS 39 continue to be measured on the same basis under HKFRS 9.
- *Impairment of financial assets.* The new impairment guidance sets out an expected credit loss (ECL) model applicable to receivables which are financial assets. The impact of applying the expected credit loss model to our other receivables (excluding prepayments and value added tax recoverable, which are not financial assets) is not material.

Based on the above assessment, we consider that the adoption of HKFRS 9 did not have a significant impact on our financial position and results of operations.

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### *Adoption of HKFRS 15*

HKFRS 15 “Revenue from contracts with customers” replaced the previous standard HKAS 18 “Revenue” and related interpretations. The standard is effective for annual periods beginning on or after January 1, 2018 and earlier application is permitted. We have consistently adopted HKFRS 15 to our financial statements throughout the Track Record Period. Our revenue was nil, nil and RMB1.1 million for the years ended December 31, 2016, 2017 and 2018, respectively. The adoption of HKFRS 15 instead of HKAS18 did not have a significant impact on our financial position and results of operations.

### *Adoption of HKFRS 16*

HKFRS 16 “Leases” addresses the definition of a lease, recognition and measurement of leases and establishes principles for reporting useful information to users of financial statements about the leasing activities of both lessees and lessors. A key change arising from HKFRS 16 is that most operating leases will be accounted for on the balance sheet for lessees. We are a lessee of certain offices, buildings and motor vehicles which are currently classified as operating leases. Our current accounting policy for such leases is set out in note 2 of the Accountants’ Report set out in Appendix I to this Prospectus. As of December 31, 2018, we had non-cancellable operating lease commitments of RMB25.9 million and our leasing expense in 2018 was RMB6.0 million. Under HKFRS 16, lessees are required to recognize a lease liability reflecting future lease payments and a right-of-use asset for all lease contracts in the balance sheet with exemption for lease of low-value assets or short term leases. Lessees will also have to present interest expense on the lease liability and depreciation on the right-of-use asset in the statement of comprehensive income. In comparison with operating leases under HKAS 17, this will change not only the allocation of expense but also the total amount of expenses recognized for each period of the lease term. The combination of a straight-line depreciation of the right-of-use asset and the effective interest rate method applied to the lease liability will result a higher total charge to profit or loss in the initial years of the lease, and decreasing expenses during the latter part of the lease term.

We plan to apply HKFRS 16 from the annual period beginning January 1, 2019. We expect to recognize lease liabilities of approximately RMB20.7 million and right-of-use assets of approximately RMB16.9 million on January 1, 2019 after adjustments for prepayments and accrued lease payments recognized as of December 31, 2018. Overall prepayments for lease agreements in other receivables and prepayments and rental payable in our other payables and accruals will decrease as of January 1, 2019. The change in net assets will be insignificant. The decrease in our net loss will also be insignificant in 2019 because the lease agreements are in the later years of the whole leasing period. Operating cash flows will increase and financing cash flows decrease as repayment of the principal portion of the lease liabilities will be classified as cash flows from financing activities. For a detailed description of the impact of the implementation of HKFRS 16 on our financial statements, see note 2.25 of the Accountants’ Report set out in Appendix I to this Prospectus.



## FINANCIAL INFORMATION

### DESCRIPTION OF CERTAIN CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME ITEMS

The following table sets forth a summary of our consolidated statements of comprehensive income for the periods indicated.

	For the year ended December 31,		
	2016	2017	2018
	<i>(RMB in thousands)</i>		
Revenue	–	–	1,132
Other income	9,873	20,992	19,962
Administrative expenses	(10,892)	(16,686)	(46,231)
Research and development expenses	(51,667)	(68,100)	(113,646)
Other (losses)/gains – net	–	(2)	205
<b>Operating loss</b>	<b>(52,686)</b>	<b>(63,796)</b>	<b>(138,578)</b>
Finance income	2,835	228	297
Finance costs	–	(882)	–
Finance income/(costs) – net	2,835	(654)	297
<b>Loss before income tax</b>	<b>(49,851)</b>	<b>(64,450)</b>	<b>(138,281)</b>
Income tax expense	–	–	–
<b>Loss for the year and total comprehensive loss</b>	<b>(49,851)</b>	<b>(64,450)</b>	<b>(138,281)</b>

### Revenue

We did not generate any revenue for the years ended December 31, 2016 and 2017, respectively. For the year ended December 31, 2018, we recorded revenue of RMB1.1 million from research and development services we provided to an Independent Third Party to filter and validate certain antibodies through our advanced vaccine R&D platform technologies.

### Other Income

For the years ended December 31, 2016, 2017 and 2018, we had other income of RMB9.9 million, RMB21.0 million and RMB20.0 million, respectively. Our other income primarily consisted of (i) government grants to support our research and development activities and manufacturing facility construction, (ii) investment income on wealth management products that we purchased from certain reputable commercial banks, and (iii) income from sales of vaccine components to an Italian vaccine manufacturer.

## FINANCIAL INFORMATION

The following table sets forth a breakdown of our other income for the periods indicated:

	For the year ended December 31,					
	2016		2017		2018	
	Amount	%	Amount	%	Amount	%
<i>(RMB in thousands, except percentages)</i>						
Investment income on wealth management products	1,678	17.0	11,810	56.3	12,438	62.3
Government grants	8,040	81.4	8,995	42.8	5,842	29.3
Income from vaccine components	–	–	–	–	1,438	7.2
Others	155	1.6	187	0.9	244	1.2
<b>Total</b>	<b>9,873</b>	<b>100.0</b>	<b>20,992</b>	<b>100.0</b>	<b>19,962</b>	<b>100.0</b>

### Administrative Expenses

Our administrative expenses primarily consist of listing expenses, employee benefit expense for non-R&D personnel, utilities, office expenses and operating lease rental expenses, depreciation and amortization expenses, travelling and transportation expenses, auditors' remuneration and consulting fees, business tax and other transaction taxes. For the years ended December 31, 2016, 2017 and 2018, we recorded administrative expenses of RMB10.9 million, RMB16.7 million and RMB46.2 million, respectively. The following table sets forth the breakdown of our administrative expenses for the periods indicated:

	For the year ended December 31,					
	2016		2017		2018	
	Amount	%	Amount	%	Amount	%
<i>(RMB in thousands, except percentages)</i>						
Listing expenses	–	–	–	–	16,391	35.5
Employee benefits expenses	7,143	65.6	9,812	58.8	16,022	34.6
Utilities, office expenses and operating lease rental expenses	773	7.1	2,052	12.3	6,107	13.2
Travelling and transportation expenses	730	6.7	904	5.4	2,317	5.0
Business tax and other transaction taxes	434	4.0	789	4.7	2,171	4.7
Depreciation and amortization	735	6.7	845	5.1	1,326	2.9
Auditors' remuneration and consulting fee	705	6.5	1,617	9.7	1,056	2.3
Others	372	3.4	667	4.0	841	1.8
<b>Total</b>	<b>10,892</b>	<b>100.0</b>	<b>16,686</b>	<b>100.0</b>	<b>46,231</b>	<b>100.0</b>

## FINANCIAL INFORMATION

### Research and Development Expenses

Our research and development expenses primarily consisted of employee benefits expenses for our research and development personnel, raw material and consumables used and testing fees for our vaccine candidates, utilities, office expenses and operating lease rental expenses for research and development properties, travelling and transportation expenses, depreciation of R&D facilities and equipment and amortization related to land use rights and non-proprietary technologies, and others mainly including expenses for R&D collaboration seminars and expenses related to publication of our research and studies. For the years ended December 31, 2016, 2017 and 2018, we recorded research and development expenses of RMB51.7 million, RMB68.1 million and RMB113.6 million, respectively. Up to December 31, 2018, we capitalized RMB31.6 million for the clinical trial expenses for our MCV candidates. The following table sets forth the breakdown of our research and development expenses for the periods indicated:

	For the year ended December 31,					
	2016		2017		2018	
	Amount	%	Amount	%	Amount	%
<i>(RMB in thousands, except percentages)</i>						
Employee benefits expenses	24,555	47.6	34,565	50.8	60,411	53.1
Raw material and consumables used	8,680	16.8	12,709	18.7	22,940	20.2
Depreciation and amortization	5,667	11.0	7,644	11.2	10,693	9.4
Utilities, office expenses and operating lease rental expenses	5,637	10.9	6,899	10.1	7,496	6.6
Testing fee	3,462	6.7	3,345	4.9	6,171	5.4
Travelling and transportation expenses	1,053	2.0	1,709	2.5	1,459	1.3
Consulting fee	275	0.5	9	–	1,463	1.3
Others	2,338	4.5	1,220	1.8	3,013	2.7
<b>Total</b>	<b>51,667</b>	<b>100.0</b>	<b>68,100</b>	<b>100.0</b>	<b>113,646</b>	<b>100.0</b>

### Other (Losses)/Gains – Net

For the year ended December 31, 2017, we recorded other losses of RMB2,000, which is the net loss on disposal of property, plant and equipment. For the year ended December 31, 2018, we recorded other gains of RMB205,000, which primarily represented net gains on disposal of property, plant and equipment, and other miscellaneous gains.

## FINANCIAL INFORMATION

### Finance Income/(Costs) – Net

We recorded net finance income of RMB2.8 million for the year ended December 31, 2016, net finance costs of RMB0.7 million for the year ended December 31, 2017, and net finance income of RMB0.3 million for the year ended December 31, 2018. During the Track Record Period, our finance income represented (i) interest income on bank deposits, and (ii) exchange gains on foreign currency deposits due to the appreciation of U.S. dollar against Renminbi. Our finance costs primarily represented (i) interest expenses on bank borrowings, which were fully capitalized and offset in finance costs as the purpose of such borrowings was the construction of our manufacturing facility, and (ii) exchange losses on foreign currency deposits due to the depreciation of U.S. dollar against Renminbi.

The following table sets forth a breakdown of net finance income/(costs) for the periods indicated:

	For the year ended December 31,					
	2016		2017		2018	
	<i>Amount</i>	<i>%</i>	<i>Amount</i>	<i>%</i>	<i>Amount</i>	<i>%</i>
	<i>(RMB in thousands, except percentages)</i>					
<b>Finance income</b>						
Interest income on bank deposits	150	5.3	228	(34.9)	205	69.0
Exchange gains on foreign currency deposits	2,685	94.7	–	–	92	31.0
	<u>2,835</u>	<u>100.0</u>	<u>228</u>	<u>(34.9)</u>	<u>297</u>	<u>100.0</u>
<b>Finance cost</b>						
Interest expense on bank borrowings	(436)	(15.4)	(4,702)	719.0	(7,662)	(2,579.8)
Less: borrowing costs capitalized in qualifying assets	436	15.4	4,702	(719.0)	7,662	2,579.8
	<u>–</u>	<u>–</u>	<u>–</u>	<u>–</u>	<u>–</u>	<u>–</u>
Charged to statement of comprehensive income	–	–	–	–	–	–
Exchange losses on foreign currency deposits	–	–	(882)	134.9	–	–
	<u>–</u>	<u>–</u>	<u>(882)</u>	<u>134.9</u>	<u>–</u>	<u>–</u>
<b>Finance income/(costs) – net</b>	<u>2,835</u>	<u>100.0</u>	<u>(654)</u>	<u>100.0</u>	<u>297</u>	<u>100.0</u>

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### **Income Tax Expenses**

Our income tax expenses during the Track Record Period was nil. We are incorporated in the PRC and subject to the standard EIT rate of 25% under EIT Law. Since November 2016, we have been accredited as a High and New Technology Enterprise for a three-year period, and is eligible for a lower enterprise income tax rate of 15% during this period. Our Directors confirm that during the Track Record Period, we had made all the required tax filings with the relevant tax authorities in the PRC and we are not aware of any outstanding or potential disputes with such tax authorities.

### **RESULTS OF OPERATIONS**

#### **Year Ended December 31, 2018 Compared with Year Ended December 31, 2017**

##### ***Revenue***

We did not generate any revenue for the year ended December 31, 2017. For the year ended December 31, 2018, we recorded revenue of RMB1.1 million from the research and development services we provided to an Independent Third Party to filter and validate certain antibodies through our advanced vaccine R&D platform technologies.

##### ***Other Income***

Our other income decreased by 4.9% from RMB21.0 million for the year ended December 31, 2017 to RMB20.0 million for the year ended December 31, 2018, primarily due to a RMB3.2 million decrease in government grants, partially offset by the income of RMB1.4 million generated from the sales of vaccine components to an Italian vaccine manufacturer.

##### ***Administrative Expenses***

Our administrative expenses increased significantly from RMB16.7 million for the year ended December 31, 2017 to RMB46.2 million for the year ended December 31, 2018, respectively, primarily due to (i) the incurrence of listing expenses of RMB16.4 million in 2018 in connection with the Global Offering, (ii) an increase of RMB6.2 million in employee benefits expenses related to the increase in our non-R&D personnel headcount and share-based compensation expenses with respect to our employee incentive schemes, and (iii) an increase of RMB4.1 million in utilities, office expenses and operating lease rental expenses.

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## FINANCIAL INFORMATION

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### ***Research and Development Expenses***

Our research and development costs increased by 66.9% from RMB68.1 million for the year ended December 31, 2017 to RMB113.6 million for the year ended December 31, 2018, primarily due to (i) a RMB25.8 million increase in employee benefits expenses as we engaged additional scientists to join our research and development team and due to an increase in share-based compensation expenses with respect to our employee incentive schemes, and (ii) a RMB10.2 million increase in raw material and consumables used primarily in relation to the research and development of our MCV and DTcP vaccine candidates.

### ***Other (Losses)/Gains – Net***

Our other losses for the year ended December 31, 2017 was RMB2,000. For the year ended December 31, 2018, we recorded other gains of RMB205,000.

### ***Finance Income/(Costs) – Net***

Our net finance costs amounted to RMB0.7 million for the year ended December 31, 2017, which was primarily due to exchange losses on foreign currency deposits of RMB0.9 million. Due to the appreciation of the U.S. dollar against the Renminbi, we recorded exchange gains on foreign currency deposits of RMB92,000 for the year ended December 31, 2018, while our interest on bank deposits remained relatively stable at RMB0.2 million for the year ended December 31, 2017 and 2018, respectively. As such, we recorded net finance income of RMB0.3 million for the year ended December 31, 2018.

### ***Income Tax Expenses***

Our income tax expenses for the year ended December 31, 2017 and 2018 was nil.

## **Year Ended December 31, 2017 Compared to Year Ended December 31, 2016**

### ***Revenue***

We did not generate any revenue for the years ended December 31, 2016 and 2017, respectively.

### ***Other Income***

Our other income increased significantly from RMB9.9 million for the year ended December 31, 2016 to RMB21.0 million for the year ended December 31, 2017, primarily due to a RMB10.1 million increase in investment income on wealth management products we purchased.

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### *Administrative Expenses*

Our administrative expenses increased by 53.2% from RMB10.9 million for the year ended December 31, 2016 to RMB16.7 million for the year ended December 31, 2017, primarily due to (i) an increase of RMB2.7 million in employee benefits expenses, and (ii) an increase of RMB1.3 million in utilities, office expenses and operating lease rental expenses, both attributable to the increase in our non-R&D personnel headcount.

### *Research and Development Expenses*

Our research and development expenses increased by 31.8% from RMB51.7 million for the year ended December 31, 2016 to RMB68.1 million for the year ended December 31, 2017, primarily due to (i) a RMB10.0 million increase in employee benefits expenses as we engaged additional scientists to join our research and development team; and (ii) a RMB4.0 million increase in raw materials and consumables used for our vaccine candidates.

### *Other Losses*

For the year ended December 31, 2017, we recorded other losses of RMB2,000, which is the net loss on disposal of property, plant and equipment.

### *Finance Income/(Costs) – Net*

We recorded net finance income of RMB2.8 million for the year ended December 31, 2016 primarily because we had net exchange gains on our U.S dollar-dominated deposits due to the appreciation of the U.S. dollar against the Renminbi. We recorded net finance costs of RMB0.7 million for the year ended December 31, 2017 primarily because we had net exchange losses on our U.S dollar-dominated deposits due to the depreciation of the U.S. dollar against the Renminbi.

### *Income Tax Expenses*

Our income tax expenses in 2016 and 2017 was nil.

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## FINANCIAL INFORMATION

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### DESCRIPTION OF CERTAIN CONSOLIDATED BALANCE SHEETS ITEMS

#### Intangible Assets

Our intangible assets were nil, RMB21.4 million and RMB32.3 million as of December 31, 2016, 2017 and 2018, respectively, which primarily consist of capitalised clinical trial expenses. The significant increase of our intangible assets in 2017 and continuous increase in 2018 was primarily due to capitalization of the clinical trial expenses for our MCV candidates.

#### Inventories

Our inventories comprised raw materials and consumable materials used in the research and development of our vaccine candidates. The following table sets forth the components of our inventories as of the dates indicated:

	As of December 31,		
	2016	2017	2018
	<i>(RMB in thousands)</i>		
Raw materials	–	993	4,195
Consumable materials	–	631	4,299
<b>Total</b>	<b>–</b>	<b>1,624</b>	<b>8,494</b>

Our inventories increased significantly from nil as of December 31, 2016 to RMB1.6 million as of December 31, 2017 and further increased to RMB8.5 million as of December 31, 2018, primarily due to our increased procurement of raw materials and consumable materials, reflecting our increased research and development activities and our preparation for commercialization.



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### Other Receivables and Prepayments

Our other receivables and prepayments primarily include (i) VAT recoverable in relation to raw materials, property, plant and equipment and services that we procured; (ii) prepayments of listing expenses; (iii) prepayments to other suppliers for raw materials; (iv) deposits as guarantee primarily for office leases; (v) prepayments to suppliers of property, plant and equipment; and (vi) receivable of investment income on wealth management products. The following table sets forth the components of our other receivables and prepayments as of the dates indicated:

	As of December 31,		
	2016	2017	2018
	<i>(RMB in thousands)</i>		
Value added tax recoverable	–	–	12,228
Prepayments of listing expenses	–	–	10,210
Prepayments to other suppliers	73	488	3,546
Deposits as guarantee	1,512	1,672	2,377
Prepayments to suppliers of property, plant and equipment	–	921	1,882
Receivable of investment income on wealth management products	105	1,181	466
Staff advances	–	197	300
Receivables of vaccine component sale	–	–	286
	1,690	4,459	31,295
Less: non-current portion	(1,433)	(1,788)	(16,166)
Current portion	257	2,671	15,129

The increase in our other receivables and prepayments from RMB0.3 million as of December 31, 2016 to RMB2.7 million as of December 31, 2017 is primarily due to an increase in receivable of investment income on wealth management products as we increased our wealth management product purchases and an increase in prepayments to suppliers of property, plant and equipment. The further increase in our other receivables and prepayments from RMB2.7 million as of December 31, 2017 to RMB15.1 million as of December 31, 2018 was primarily due to (i) RMB12.2 million in VAT recoverable in relation to raw materials, property, plant and equipment and services that we procured, (ii) RMB10.2 million in prepayments of listing expenses, and (iii) a RMB3.1 million increase in prepayments to other suppliers primarily for raw materials in connection with our research and development activities and our preparation for commercialization.

### Restricted Cash

Our restricted cash represents restricted bank deposits in relation to borrowings for the payment of equipment purchases. Our restricted cash amounted to nil, RMB1.7 million and nil as of December 31, 2016, 2017 and 2018, respectively.

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### Trade Payables

Our trade payables mainly included payments to be paid to raw material suppliers. The following table sets forth the aging analysis of our trade payables based on invoice date as of the dates indicated:

	As of December 31,		
	2016	2017	2018
	<i>(RMB in thousands)</i>		
Within 1 year	734	1,767	6,539
Between 1 and 2 years	–	112	–
Between 2 and 3 years	–	–	112
<b>Total</b>	<b>734</b>	<b>1,879</b>	<b>6,651</b>

Our trade payables increased significantly from RMB0.7 million as of December 31, 2016 to RMB1.9 million as of December 31, 2017, and further to RMB6.7 million as of December 31, 2018, mainly as a result of our increased procurement from raw material suppliers, reflecting our increased research and development activities and our preparation for commercialization. We did not have any material defaults in payment of trade payables during the Track Record Period.

### Other Payables and Accruals

Our other payables and accruals primarily consisted of other payables to suppliers of property, plant and equipment, payroll and welfare payables, accrued listing expenses, rental payables and consulting fees in relation to our research and development activities and day-to-day operations. The following table sets forth the components of our other payables and accruals as of the dates indicated:

	As at 31 December		
	2016	2017	2018
	<i>(RMB in thousands)</i>		
Other payables to suppliers of property, plant and equipment	12,763	91,304	65,546
Payroll and welfare payable	4,860	9,107	12,816
Accrued listing expenses	–	–	8,940
Rental payable	5,737	5,989	6,431
Consulting fees	–	–	1,045
Interest payable	100	170	239
Accrued taxes other than income tax	63	438	233
Utilities	250	1,024	190
Deposits from suppliers	78	81	6
Others	305	1,183	3,063
<b>Total</b>	<b>24,156</b>	<b>109,296</b>	<b>98,509</b>

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Our other payables and accruals significantly increased from RMB24.2 million as of December 31, 2016 to RMB109.3 million as of December 31, 2017, and then decreased to RMB98.5 million as of December 31, 2018, primarily reflecting the level of purchases of equipment and construction of our manufacturing facilities, partially offset by accrued listing expenses and an increase in payroll and welfare payable.

### Deferred Income

Deferred income represents government grants we have received but have yet to meet the conditions to be recognized as other income as of the relevant dates. These government grants relate to our manufacturing facility construction and research and development activities. The following table sets forth the components of our deferred income as of the dates indicated:

	As of December 31,		
	2016	2017	2018
	<i>(RMB in thousands)</i>		
<b>Government grants</b>			
Asset-related grants	15,820	38,671	37,772
Reimbursement of future expenses	1,661	853	626
	<u>17,481</u>	<u>39,524</u>	<u>38,398</u>
Less: current portion	<u>(2,466)</u>	<u>(1,752)</u>	<u>(1,525)</u>
Non-current portion	<u><u>15,015</u></u>	<u><u>37,772</u></u>	<u><u>36,873</u></u>

The asset-related grants are primarily related to our manufacturing facilities development, and mainly used for purchase of property, plant and equipment. Reimbursement of future expenses in nature are primarily related to research and development activities.

## FINANCIAL INFORMATION

### LIQUIDITY AND CAPITAL RESOURCES

#### Net Current Assets

The following table sets forth a summary of our consolidated balance sheets as of the dates indicated:

	As of December 31,			As of February 28,
	2016	2017	2018	2019
	<i>(RMB in thousands)</i>			<i>(unaudited)</i>
<b>Current assets</b>				
Inventories	–	1,624	8,494	9,618
Other receivables and prepayments	257	2,671	15,129	22,660
Financial assets at fair value through profit or loss	–	132,636	–	15,009
Financial assets at amortized cost	94,000	270,000	140,000	130,000
Restricted cash	–	1,740	–	–
Cash and cash equivalents	52,548	18,247	57,381	5,213
<b>Total current assets</b>	<u>146,805</u>	<u>426,918</u>	<u>221,004</u>	<u>182,500</u>
<b>Current liabilities</b>				
Trade payables	734	1,879	6,651	6,275
Other payables and accruals	24,156	109,296	98,509	77,250
Deferred income	2,466	1,752	1,525	5,524
<b>Total current liabilities</b>	<u>27,356</u>	<u>112,927</u>	<u>106,685</u>	<u>89,049</u>
<b>Net current assets</b>	<u>119,449</u>	<u>313,991</u>	<u>114,319</u>	<u>93,451</u>

Our net current assets increased from RMB119.4 million as of December 31, 2016 to RMB314.0 million as of December 31, 2017 primarily due to (i) a RMB176.0 million increase in financial assets at amortized cost, and (ii) a RMB132.6 million increase in financial assets at fair value through profit or loss, reflecting our increased purchase of such wealth management products, partially offset by a RMB85.1 million increase in other payables and accruals primarily related to the purchases of property, plant and equipment for construction of our manufacturing facilities.

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## FINANCIAL INFORMATION

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Our net current assets decreased from RMB314.0 million as of December 31, 2017 to RMB114.3 million as of December 31, 2018, primarily due to (i) a RMB132.6 million decrease in financial assets at fair value through profit or loss as our wealth management products reached maturity and we used such cash in our operations; and (ii) a RMB130.0 million decrease in financial assets at amortized cost as a result of redemption of certain wealth management products with fixed rates, partially offset by a RMB39.1 million increase in cash and cash equivalents.

Our net current assets decreased from RMB114.3 million as of December 31, 2018 to RMB93.5 million as of February 28, 2019, primarily due to a RMB52.2 million decrease in cash and cash equivalents, partially offset by (i) a RMB15.0 million increase in financial assets at fair value through profit or loss due to our purchase of such wealth management products; and (ii) a RMB21.3 million decrease in other payables and accruals primarily as a result of our payment for certain construction works in connection with our manufacturing facilities.

### **Working Capital**

Our primary uses of liquidity are to fund our research and development, clinical trials and construction of our manufacturing facility. During the Track Record Period, we primarily funded our working capital requirement through investments from Pre-IPO Investors and bank borrowings. We monitor our cash flows and cash balance on a regular basis and strive to maintain an optimal liquidity that can meet our working capital needs.

Going forward, we believe our liquidity requirements will be mainly satisfied by using funds from a combination of net proceeds from the Global Offering, bank borrowings, Round 5 of our pre-IPO investments and cash generated from operations. Our funds available for use amounted to RMB150.2 million as of February 28, 2019. See “– Treasury Management” for details. As of December 31, 2018, we did not have unutilized banking facilities. Other than the bank borrowings that we have obtained or may obtain, we currently do not have any plans for material external debt financing. Taking these into account, our Directors believe that we have sufficient working capital to cover at least 125% of our costs, including general, administrative and operating costs as well as research and development costs, for at least 12 months from the date of publication of this Prospectus. Based on the written confirmation from the Company in respect of working capital sufficiency, the review of Accountant’s reports and discussion with the Directors, taking into account the working capital statement and memorandum on working capital forecast as well as the Company’s cash and cash equivalents and net proceeds from the Global Offering, the Joint Sponsors concur with the Directors’ view.

## FINANCIAL INFORMATION

### Treasury Management

During the Track Record Period, our treasury management consisted of financial assets at fair value through profit or loss, financial assets at amortized cost and cash and cash equivalents.

	As of December 31,		
	2016	2017	2018
	<i>(RMB in thousands)</i>		
Financial assets at amortized cost	94,000	270,000	140,000
Cash and cash equivalents	52,548	18,247	57,381
Financial assets at fair value through profit or loss	—	132,636	—
<b>Funds available for use</b>	<b>146,548</b>	<b>420,883</b>	<b>197,381</b>

Our cash and cash equivalents consist of deposits with banks and cash on hand. Our cash deposits at bank are denominated in Renminbi and U.S. dollars, and earn interest at floating rates based on daily bank deposit rates.

Our financial assets at fair value through profit or loss represent the wealth management products with floating rate we purchased. These wealth management products generally had maturity periods of one to three months. Our financial assets at amortized cost represent wealth management products with fixed rates. Our wealth management products with fixed rates as of December 31, 2016, 2017 and 2018 bear interests at 2.2% to 2.8%, 4.5% to 4.55%, and 3.85% to 4.25% per annum, and maturity periods of 7 to 35 days, 88 to 93 days and 35 to 91 days, respectively. Our wealth management products with floating rate and wealth management products with fixed rates as of the same dates were principal-guaranteed.

We invested in these wealth management products, which were issued by reputable commercial banks in the PRC, during the Track Record Period because we believe we can make better and more effective use of cash to enhance our income without interfering with our business operation or capital expenditures by generating higher yield than cash deposits, while maintaining a stable liquidity and low level risk.

Our finance department is responsible for managing our investment activities. Investment decisions of our finance department are subject to review and approval of our management team. Our finance department assesses our cash flow, operational needs and capital expenditure as well as the targeted products' risk profile before making a proposal to invest in investment products. If our cash flow exceeds operational needs and appropriate short-term investment opportunities are available, our finance department will submit the investment proposal to our management team for review and approval.

## FINANCIAL INFORMATION

### Cash Operating Costs

The following table sets forth the key information relating to our cash operating costs for the periods indicated.

	For the year ended December 31,		
	2016	2017	2018
	(RMB in thousands)		
<i>Costs Relating to Research and Development and Clinical Trials:</i>			
Employee benefits expenses	22,843	30,749	57,663
Raw material and consumables used	8,680	12,709	22,940
Depreciation and amortization	5,667	7,644	10,693
Clinical trial expenditure	–	21,310	10,275
Utilities, office expenses and operating lease rental expenses	5,137	6,647	7,054
Testing fee	3,462	3,345	6,171
Consulting fee	275	9	1,463
Travelling and transportation expenses	1,053	1,709	1,459
Others	2,338	1,220	3,013
<b>Total:</b>	49,455	85,342	120,731
Administrative staff expenses	6,658	9,381	15,061
Direct production <sup>(1)</sup>	–	–	–
Commercialization <sup>(1)</sup>	–	–	–
Contingency allowance <sup>(2)</sup>	–	–	–

(1) Direct production costs represent costs directly attributable to the manufacturing. Commercialization costs represent costs relating to product sales and marketing. We had not commenced commercial manufacturing or product sales as of the Latest Practicable Date.

(2) Contingency allowance represent provisions accrued for contingent liabilities. We had no contingent liabilities during Track Record Period.

## FINANCIAL INFORMATION

### Cash Flows

The following table sets forth a summary of our consolidated statements of cash flows as of the dates.

	For the year ended December 31,		
	2016	2017	2018
	<i>(RMB in thousands)</i>		
Operating cash flows before movements in working capital	(38,771)	(60,610)	(124,221)
Net cash used in operating activities	(34,383)	(56,301)	(123,638)
Net cash (used in)/generated from investing activities	(173,543)	(461,490)	117,625
Net cash generated from financing activities	150,815	484,372	45,055
Net (decrease)/increase in cash and cash equivalents	(57,111)	(33,419)	39,042
Cash and cash equivalents at the beginning of the year	106,974	52,548	18,247
Exchange gains/(losses) on cash and cash equivalents	2,685	(882)	92
Cash and cash equivalents at the end of the year	52,548	18,247	57,381

### Operating Activities

Our cash inflows from operating activities mainly consisted of government grants. Our cash outflow from operating activities mainly consisted of research and development costs and administrative expenses.

For the year ended December 31, 2018, we had net cash used in operating activities of RMB123.6 million, primarily as a result of operating losses before changes in working capital of RMB124.2 million and the positive effect of the changes in working capital. The positive changes in working capital mainly consisted of (i) an increase in other payables and accruals of RMB10.7 million due to increase in payment for bonus and utilities; and (ii) an increase in trade payables of RMB4.8 million due to our increased procurement from raw material suppliers, reflecting our increased research and development activities. These cash inflows were partially offset by (i) an increase in other receivables and prepayments of RMB8.0 million primarily related to VAT recoverable and prepayments to other suppliers; and (ii) an increase in inventories of RMB6.9 million as a result of our increased procurement of raw materials and consumable materials, reflecting our increased research and development activities and our preparation for commercialization.



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For the year ended December 31, 2017, we had net cash used in operating activities of RMB56.3 million, primarily as a result of operating losses before changes in working capital of RMB60.6 million and the positive effect of the changes in working capital. The positive changes in working capital mainly consisted of (i) an increase in other payables and accruals of RMB6.1 million due to an increase of bonus accrued; and (ii) an increase in trade payables of RMB1.1 million as a result of our increased procurement from raw material suppliers, reflecting our increased research and development activities. These cash inflows were partially offset by an increase in inventories of RMB1.6 million as a result of our increased procurement of raw materials and consumable materials, reflecting our increased research and development activities.

For the year ended December 31, 2016, we had net cash used in operating activities of RMB34.4 million, primarily as a result of operating losses before changes in working capital of RMB38.8 million and the positive effect of the changes in working capital. The positive changes in working capital mainly consisted of (i) a decrease in trade receivables of RMB1.9 million due to receipt of licensing fees from Sinovac Biotech Co., Ltd.; (ii) an increase in other payables and accruals of RMB1.4 million as a result of an increase in bonus accrued; and (iii) a decrease in other receivables and prepayments of RMB0.9 million as a result of withdrawal of deposits as guarantee.

### *Investing Activities*

Our cash used in investing activities mainly consisted of our cash used in purchase of wealth management products, purchase of property, plant and equipment, purchase of intangible assets and purchase of land use rights. Our cash generated from investing activities mainly consisted of proceeds from disposal of wealth management products and asset related government grants received.

For the year ended December 31, 2018, our net cash generated from investing activities was RMB117.6 million, primarily attributable to net cash inflow of RMB262.0 million attributable to wealth management products, partially offset by the purchase of property, plant and equipment of RMB149.4 million, primarily reflecting construction progress.

For the year ended December 31, 2017, our net cash used in investing activities was RMB461.5 million, primarily attributable to (i) net cash outflow of RMB308.0 million attributable to wealth management products, and (ii) the purchase of property, plant and equipment of RMB164.5 million.

For the year ended December 31, 2016, our net cash used in investing activities was RMB173.5 million, primarily attributable to (i) net cash outflow of RMB64.0 million attributable to wealth management products, and (ii) the purchase of property, plant and equipment of RMB126.1 million.

## FINANCIAL INFORMATION

### *Financing Activities*

Our cash inflow from financing activities primarily related to our corporate financings and proceeds from borrowings during the Track Record Period.

For the year ended December 31, 2018, our net cash from financing activities was RMB45.1 million, primarily attributable to proceeds from borrowings of RMB41.7 million and RMB17.5 million in proceeds from shares issued to shareholders. See “History and Development – Pre-IPO Investments.” Our net cash used in financing activities comprised RMB7.6 million in interest paid and RMB6.5 million in prepayment of listing expenses.

For the year ended December 31, 2017, our net cash from financing activities was RMB484.4 million, primarily attributable to proceeds from shares issued to shareholders of RMB450.0 million. For details, see “History and Development – Pre-IPO Investments.”

For the year ended December 31, 2016, our net cash from financing activities was RMB150.8 million, primarily attributable to (i) capital injection from shareholders of RMB81.8 million into our company; (ii) proceeds from borrowings of RMB69.3 million.

### INDEBTEDNESS

Our borrowings primarily consisted of long-term borrowings from banks. Our bank borrowings as of December 31, 2016, 2017 and 2018 and February 28, 2019, being the latest practicable date for determining our indebtedness, were as follows:

	As of December 31,			As of February 28,
	2016	2017	2018	2019
	<i>(RMB in thousands)</i>			<i>(unaudited)</i>
<b>Non-current</b>				
Borrowings from banks – secured	69,329	108,333	150,000	150,000
<b>Maturity</b>				
Between two and five years	60,000	108,333	150,000	150,000
Over five years	9,329	–	–	–
<b>Total</b>	69,329	108,333	150,000	150,000

As of December 31, 2016, 2017 and 2018, our bank borrowings were denominated in Renminbi, bearing interest at rates equivalent to 105%-120% of rates announced by the PBOC. Our borrowings were pledged with the certain of our property, plant and equipment and land use right as collateral. The carrying amount of property, plant and equipment pledged as collateral were RMB61.9 million, RMB208.9 million and RMB254.3 million as of December 31, 2016, 2017 and 2018, respectively. The carrying amount of land use right pledged as collateral were RMB9.5 million, RMB11.1 million and RMB10.8 million as of December 31, 2016, 2017 and 2018, respectively. Our borrowings were guaranteed by our related party, Tianjin Kun Jian Biopharmaceutical Co., Ltd. These guarantees have been released in July 2018.

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## FINANCIAL INFORMATION

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Our bank borrowing agreements contain standard terms, conditions and covenants that are customary for commercial bank loans. Our Directors confirm that we did not experience any difficulty in obtaining bank loans and other borrowings, default in payment of bank borrowings or breach of covenants during the Track Record Period and up to the Latest Practicable Date. Given our credit history and relationship with our principal lenders and our current credit status, we believe that we will not encounter any major difficulties in obtaining additional bank borrowings in the future.

### CAPITAL EXPENDITURES

Our capital expenditure consist primarily of expenditures for construction in progress, equipment and instruments for our manufacturing facility and leasehold improvements. The following table sets forth our capital expenditures for the periods indicated:

	<b>For the year ended December 31,</b>		
	<b>2016</b>	<b>2017</b>	<b>2018</b>
	<i>(RMB in thousands)</i>		
Construction in progress	122,100	239,129	105,987
Equipment and instruments	10,186	5,706	13,325
Intangible assets	–	21,423	11,035
Motor vehicles	–	–	367
Office equipment and furniture	315	1,083	2,477
Leasehold improvements	5,207	873	–
<b>Total</b>	<b>137,808</b>	<b>268,214</b>	<b>133,191</b>

Our capital expenditures increased significantly from 2016 to 2017 primarily because we commenced construction of our manufacturing facility in November 2016. Our capital expenditures decreased significantly in 2018 as we completed the construction of such facility in 2018.

We expect that our capital expenditures for the years ending December 31, 2019 and 2020 will primarily relate to the expansion of our research and development facilities and equipment procurement for our manufacturing facility. We intend to fund our capital expenditures using funds from a combination of our bank borrowings and net proceeds from the Global Offering.

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## FINANCIAL INFORMATION

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### CONTINGENT LIABILITIES

As of the Latest Practicable Date, we were not involved in any material legal, arbitration or administrative proceedings that, if adversely determined, we expected would materially adversely affect our business, financial position or results of operations. We did not have any outstanding loan issued or agreed to be issued, debt securities, debentures, bank overdrafts, liabilities under acceptances or acceptance credits or hire purchase commitments as of the Latest Practicable Date. As of the same date, we had not guaranteed the indebtedness of any Independent Third Parties. Our Directors confirm that there has been no material change in our contingent liabilities since December 31, 2018 to the date of this Prospectus.

### COMMITMENTS

#### Capital Commitments

We had the following capital commitments for property, plant and equipment as of the dates indicated:

	As of December 31,		
	2016	2017	2018
	<i>(RMB in thousands)</i>		
Contracted, but not provided for:			
Property, plant and machinery	233,815	75,331	14,239

We had significant capital commitments for property, plant and equipment as of December 31, 2016 primarily because we commenced construction of our manufacturing facility in 2016.

#### Operating Lease Commitments

We lease a building that serves research and development and administrative functions. The following table sets forth our future minimum lease payables under non-cancellable operating leases contracted for as of the dates indicated but not recognized as liabilities.

	As of December 31,		
	2016	2017	2018
	<i>(RMB in thousands)</i>		
No later than one year	4,050	4,028	7,756
Later than one year but no later than five years	15,833	11,805	18,097
<b>Total</b>	<b>19,883</b>	<b>15,833</b>	<b>25,853</b>

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## FINANCIAL INFORMATION

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### RELATED PARTY TRANSACTIONS

During the Track Record Period, we entered into transactions with Tianjin Kun Jian Biopharmaceutical Co., Ltd. in which we purchased certain equipment and services related to research and development from it. For the years ended December 31, 2016, 2017 and 2018, our purchases amounted to RMB0.09 million, RMB2.1 million and nil, respectively.

In addition, Tianjin Kun Jian Biopharmaceutical Co., Ltd. provided guarantees to us in the amount of RMB69.3 million, RMB108.3 million and nil as of December 31, 2016, 2017 and 2018, for our bank borrowings. These guarantees have been released in July 2018.

It is the view of our Directors that the related party transactions discussed above and set out in Note 34 of the Accountant's Report set out in Appendix I to this Prospectus were conducted in the ordinary and usual course of business and on normal commercial terms between the relevant parties.

### KEY FINANCIAL RATIOS

The following table set forth our key financial ratios as of the dates or for the periods indicated:

	As of December 31,		
	2016	2017	2018
Current ratio <sup>(1)</sup>	5.37	3.78	2.07
Quick ratio <sup>(2)</sup>	5.37	3.77	1.99
Gearing ratio <sup>(3)</sup>	7.3%	12.9%	15.6%

(1) Current ratio represents current assets divided by current liabilities as of the same date.

(2) Quick ratio represents current assets less inventories and divided by current liabilities as of the same date.

(3) Gearing ratio represents net debt divided by total capital and multiplied by 100%. Net debt is calculated as total borrowings less cash and cash equivalents. Total capital is calculated as equity as shown in the consolidated balance sheet plus net debt.

Our current ratio decreased from 5.37 as of December 31, 2016 to 3.78 as of December 31, 2017, and our quick ratio decreased from 5.37 as of December 31, 2016 to 3.77 as of December 31, 2017 mainly due to an increase in other payables and accruals as a result of the increase of other payables to suppliers of property, plant and equipment associated with the construction of our manufacturing facilities. Our current ratio decreased from 3.78 as of December 31, 2017 to 2.07 as of December 31, 2018, and our quick ratio decreased from 3.77 as of December 31, 2017 to 1.99 as of December 31, 2018, mainly due to (i) a decrease in financial assets at fair value through profit or loss as our wealth management products reached maturity and we used such cash in our operations, and (ii) a decrease in financial assets at amortized cost as a result of redemption of certain wealth management products with fixed rates.

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## FINANCIAL INFORMATION

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Our gearing ratio increased from 7.3% as of December 31, 2016 to 12.9% as of December 31, 2017 primarily due to an increase in our borrowings by RMB39.0 million, while our cash and cash equivalents decreased by RMB34.3 million. Our gearing ratio increased to 15.6% as of December 31, 2018 primarily due to an increase in our borrowings by RMB41.7 million and an increase in our accumulated loss by RMB138.3 million.

### OFF-BALANCE SHEET COMMITMENTS AND ARRANGEMENTS

As of the Latest Practicable Date, we had not entered into any off-balance sheet transactions.

### MARKET RISKS

We are exposed to a variety of market risks, including foreign exchange risk, cash flow and fair value interest rate risk, credit risk and liquidity risk as set out below. We manage and monitor these exposures to ensure appropriate measures are implemented on a timely and effective manner. As of the Latest Practicable Date, we did not hedge or consider necessary to hedge any of these risks. For further details, including relevant sensitivity analysis, see Note 3.1 in the Accountant's Report set out in Appendix I of this Prospectus.

#### Foreign Exchange Risk

Foreign currency risk is the risk that the value of a financial instrument fluctuates because of the change in foreign exchange rates. We mainly operate in the PRC with most of the transactions settled in Renminbi. We are not exposed to foreign exchange risk as we do not have significant financial assets or liabilities denominated in the currencies other than the functional currency, except for the cash at bank in US dollars which were primarily received from the investors as capital contributions as mentioned in Note 21 and 22 in the Accountant's Report set out in Appendix I of this Prospectus. For details, see Note 3.1 in the Accountant's Report set out in Appendix I of this Prospectus.

#### Cash Flow and Fair Value Interest Rate Risk

We are exposed to interest rate risk primarily in relation to cash and cash equivalents, wealth management products and borrowings. We generally assume borrowings to fund capital expenditures and working capital requirements. The risk is mainly managed by us by maintaining an appropriate mix between fixed and floating rate borrowings.

During the Track Record Period, all the interest have been capitalized. Assuming there was no interest capitalization effect, we perform a sensitivity analysis below which has been determined based on the exposure to interest rates for financial assets and financial liabilities at the end of the reporting period. For floating rate liabilities, the analysis is prepared assuming the amount of the liability outstanding at the end of the reporting period was outstanding for the whole year.

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## FINANCIAL INFORMATION

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A 50 basis point increase or decrease represents our assessment of the reasonably possible change in interest rates. If interest rates had been 50 basis points higher and all other variables were held constant, our loss would approximately increase by RMB347,000, RMB542,000 and RMB750,000 for each of the years ended December 31, 2016, 2017 and 2018, respectively.

### **Credit Risk**

Credit risk mainly arises from short-term deposits, bank balance, financial assets at fair value through profit or loss, financial assets at amortized cost and other receivables. The maximum exposure to credit risk is represented by the carrying amount of each financial asset in the consolidated balance sheet.

The credit risk of financial assets at amortized cost, financial assets at fair value through profit or loss, short-term bank deposit and bank balance is considered to be low because the counterparties are state-owned or reputable commercial banks which are high-credit-quality financial institutions located in the PRC. The financial assets at amortized cost are short-term wealth management products with fixed rate. Our Directors do not expect any losses and no loss allowance provision for financial assets at amortized cost, financial assets at fair value through profit or loss, short-term bank deposits and bank balance.

For trade and other receivables, our management makes periodic assessments as well as individual assessment on the recoverability based on historical settlement records and past experience and adjusts for forward looking information. We apply the simplified approach for our trade receivables using a lifetime expected loss provision. As of December 31, 2016, 2017 and 2018, we had no balance in respect of trade receivables. Thus no loss allowance provision for trade receivables was recognized during the Track Record Period.

Our management has assessed that during the Track Record Period, other receivables have not had a significant increase in credit risk since initial recognition. Thus, a 12-month expected credit loss approach that results from possible default event within 12 months of each reporting date is adopted by management. We do not expect any losses from non-performance by the counterparties of other receivables and no loss allowance provision for other receivables was recognized.

### **Liquidity Risk**

We aim to maintain sufficient cash to meet operating capital requirements. For details, see Note 3.1 in “Appendix I – Accountant’s Report.”

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## FINANCIAL INFORMATION

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### FAIR VALUE ESTIMATION

During the Track Record Period, we purchased wealth management products with floating rates, which were recorded as financial assets at fair value through profit or loss in our balance sheets. As of December 31, 2017, we had financial assets at fair value through profit or loss of RMB132.6 million. We did not have any financial assets at fair value through profit or loss as of December 31, 2016 and 2018, respectively. To provide an indication of the reliability of the inputs used in determining fair value, we have classified our financial instruments into three levels as follows:

- (i) Quoted prices (unadjusted) in active markets for identical assets or liabilities (level 1).
- (ii) Inputs other than quoted prices included within level 1 that are observable for the asset or liability, either directly (that is, as prices) or indirectly (that is, derived from prices) (level 2).
- (iii) Inputs for the asset or liability that are not based on observable market data (that is, unobservable inputs) (level 3).

As of December 31, 2017, all of our financial assets at fair value through profit or loss were classified as level three financial instruments. Our finance department performs a valuation of level 3 financial instruments for financial reporting purposes. It manages the valuation exercise of the investments on a case-by-case basis. At least once a year, our finance department uses valuation techniques to determine the fair value of our level 3 instruments and reports to senior management and our Directors. For details, see Note 3.3 of the Accountant's Report set out in Appendix I of this Prospectus. Our Directors have reviewed the fair value measurement of level 3 financial instruments, taking into account the significant unobservable inputs and the applicable valuation techniques, and determined that the fair value measurement of level 3 financial instruments is in accordance with the applicable HKFRSs.

The reporting accountant's opinion on the historical financial information of the Group for the Track Record Period is set out in Appendix I to this Prospectus.

Our Directors are satisfied with the valuation exercise for financial assets categorized as level 3 financial instruments in its historical financial information for the purpose of preparing the Accountant's Report set out in Appendix I to this Prospectus, and the Joint Sponsors concur with the Directors' view, having considered the unqualified opinion on our historical financial information as a whole issued by the reporting accountant included in Appendix I of this Prospectus and discussed with the reporting accountant in relation to the valuation work performed by us during the Track Record Period for financial assets categorized as level 3 financial instruments.



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## FINANCIAL INFORMATION

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### DIVIDENDS

No dividend (nil) has been paid or declared by the Company during the Track Record Period. After completion of the Global Offering, our shareholders will be entitled to receive dividends declared by us. Any future declarations and payments of dividends may or may not reflect the historical declarations and payments of dividends. The determination of whether to pay a dividend and in which amount is based on our results of operations, cash flow, financial condition, capital requirements and other factors the Board may deem relevant. Any dividend distribution will also be subject to the approval of the Shareholders in the Shareholder's meeting. Except as disclosed in the Prospectus, all of our Shareholders have equal rights to dividends and distributions in the form of cash or stock.

Under the PRC law and the Articles of Association, the general reserve requires annual appropriations of 10% of after-tax profits at each year-end until the balance reaches 50% of the relevant PRC entity's registered capital. We may pay dividends out of our after-tax profits after having made the recovery of accumulated losses.

### DISTRIBUTABLE RESERVES

As of December 31, 2018, our Company had nil retained profits under HKFRSs, as reserves available for distribution to our equity shareholders.

### LISTING EXPENSES

Listing expenses to be borne by us are estimated to be approximately RMB91.5 million (equivalent to approximately HK\$107.3 million) (including underwriting commission). For the year ended December 31, 2018, approximately RMB16.4 million (equivalent to approximately HK\$19.2 million) was charged to our consolidated statements of comprehensive income as administrative expenses. For the year ending December 31, 2019, approximately RMB19.3 million (equivalent to approximately HK\$22.6 million in total) is expected to be charged to our consolidated statement of comprehensive income as administrative expenses, and approximately RMB55.8 million (equivalent to approximately HK\$65.5 million) is expected to be accounted for as a deduction from equity upon the Listing. The listing expenses above are the latest practicable estimate for reference only, and the actual amount may differ from this estimate. Our Directors do not expect such listing expenses to have a material adverse impact on our results of operations for the year ending December 31, 2019.

## FINANCIAL INFORMATION

### UNAUDITED PRO FORMA STATEMENT OF ADJUSTED NET TANGIBLE ASSETS

This unaudited pro forma adjusted consolidated net tangible assets has been prepared for illustrative purposes only and, because of its hypothetical nature, it may not give a true picture of the financial position of the Group had the Global Offering been completed as at December 31, 2018 or at any future date.

	Audited consolidated net tangible assets attributable to the owners of the Company as of December 31, 2018 <sup>(1)</sup>	Estimated net proceeds from the Global Offering <sup>(2)</sup>	Unaudited pro forma adjusted consolidated net tangible assets attributable to the owners of the Company	Unaudited pro forma adjusted consolidated net tangible assets per share	
	<i>(RMB in thousands)</i>				<i>RMB<sup>(3)</sup>    HK\$<sup>(4)</sup></i>
Based on the Offer Price of HK\$21.00 per share	469,997	948,899	1,418,896	6.50	7.62
Based on the Offer Price of HK\$22.00 per share	469,997	995,656	1,465,653	6.72	7.88

*Notes:*

- (1) The audited consolidated net tangible assets attributable to the owners of the Company as of December 31, 2018 is extracted from the Accountant's Report set forth in Appendix I to the Prospectus, which is based on the audited consolidated net assets attributable to the owners of the Company as of December 31, 2018 of RMB502,317,000 with an adjustment for the intangible assets attributable to the owners of the Company as of December 31, 2018 of RMB32,320,000.
- (2) The estimated net proceeds from the Global Offering are based on the indicative Offer Price of HK\$21.00 and HK\$22.00 per share after deduction of the estimated underwriting fees and other related expenses payable by the Company, and takes no account of any shares that may be issued upon exercise of the Over-allotment Option.
- (3) The unaudited pro forma adjusted consolidated net tangible assets per share are determined after the adjustments as described in note 2 above and on the basis that 218,199,499 shares are in issue, assuming the Global Offering had been completed on December 31, 2018 but takes no account of any shares which may fall to be issued upon the exercise of the Over-allotment Option.
- (4) For the purpose of this unaudited pro forma adjusted net tangible assets, the balance stated in Renminbi is converted into Hong Kong dollars at a rate of HK\$1.00 to RMB0.85297. No representation is made that Renminbi amounts have been, could have been or may be converted to Hong Kong dollars, or vice versa, at that rate.
- (5) No adjustments have been made to the unaudited pro forma adjusted consolidated net tangible assets to reflect any trading results or other transactions of the Group entered into subsequent to December 31, 2018.

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## FINANCIAL INFORMATION

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### **NO MATERIAL ADVERSE CHANGE**

Our Directors have confirmed, after performing all the due diligence work which our Directors consider appropriate, that, as of the date of this Prospectus, there had been no material adverse change in our financial or trading position or prospectus since December 31, 2018 and up to the date of this Prospectus.

### **DISCLOSURE REQUIRED UNDER THE LISTING RULES**

Our Directors have confirmed that, as of the Latest Practicable Date, they were not aware of any circumstance that would give rise to a disclosure requirement under Rules 13.13 to 13.19 of the Listing Rules.

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## FUTURE PLANS AND USE OF PROCEEDS

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### FUTURE PLANS AND PROSPECTS

See “Business – Business Strategy” for a detailed description of our future plans.

### USE OF PROCEEDS

The primary reason for our Listing is to raise funding for the research and development as well as commercialization of our Core Products, namely, our MCV4 candidate and MCV2 candidate, as well as other key products in our product pipeline. We estimate that we will receive net proceeds from the Global Offering of approximately HK\$1,123.5 million, after deducting underwriting commissions, fees and estimated expenses payable by us in connection with the Global Offering, and assuming an Offer Price of HK\$21.50 per Share, being the mid-point of the indicative Offer Price range stated in this Prospectus. If the Offer Price is set at HK\$22.00 per Share, being the high end of the indicative Offer Price range, the net proceeds from the Global Offering will increase by approximately HK\$27.5 million. If the Offer Price is set at HK\$21.00 per Share, being the low end of the indicative Offer Price range, the net proceeds from the Global Offering will decrease by approximately HK\$27.5 million.

Assuming an Offer Price at the mid-point of the indicative Offer Price range, we currently intend to apply these net proceeds for the following purposes:

- Approximately 80%, or HK\$898.7 million, will be used for the research and development and commercialization of our Core Products, as well as other key products in our product pipeline.
  - approximately 45%, or HK\$505.5 million, to be used for the research and development and commercialization of our Core Products, namely, our MCV candidates, over the next two to three years.
- (i) We expect to allocate approximately 5%, or HK\$56.1 million, to research and development of our MCV4 candidate and MCV2 candidate, the majority of which will be used to conduct further clinical trials with an age indication for adults and chemical, manufacturing and control. To a lesser extent, we expect to use such proceeds to prepare for NDA application. See “Business – Our Vaccine Pipeline – MCV Candidates – Near-commercial Vaccine Candidates;” and
- (ii) We expect to allocate approximately 40%, or HK\$449.4 million, to prepare for commercialization, of which approximately 62% will be used for our MCV4 candidate and approximately 38% will be used for our MCV2 candidate. Our commercialization activities will primarily include hiring additional commercialization personnel, engaging local business partners to cover lower-tier cities, and increasing public awareness, and build a network of cold-chain logistics providers. For details, see “Business – Business Strategy – Establish and strengthen our commercialization infrastructure;”

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## FUTURE PLANS AND USE OF PROCEEDS

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- approximately 20%, or HK\$224.7 million, will be used for the research and development of our DTcP candidates, over the next three to five years. Of this amount, approximately 60% will be used for our DTcP Infant and DTcP Booster candidates, and approximately 40% will be used for our Tdcp Adolescent and Adult candidate. Our research and development activities will primarily include conducting clinical trials (including chemical, manufacturing and control) and preparing for NDA application. See “Business – Our Vaccine Pipeline – DTcP Vaccine Candidates;” and
- approximately 15%, or HK\$168.5 million, will be used for the research and development of our other key products, namely, our TB Booster, PBPV and PCV13i candidates over the next three to five years. We expect to allocate approximately 80% of the proceeds intended for this purpose for our PCV13i candidate, approximately 13% of such proceeds for our PBPV candidate, and approximately 7% of such proceeds for our TB Booster candidate. Our research and development activities will primarily include conducting clinical trials, and chemical, manufacturing and control.
- Approximately 10%, or HK\$112.4 million, will be used for the continued research and development of our pre-clinical vaccine candidates;
- Approximately 10%, or HK\$112.4 million, will be used for working capital and other general corporate purposes.

The above allocation of the net proceeds from the Global Offering will be adjusted on a pro rata basis in the event that the Offer Price is fixed at a higher or lower level compared to the mid-point of the indicative Offer Price range stated in this Prospectus.

If the Over-allotment Option is exercised in full, the net proceeds that we will receive will be approximately HK\$1,215.3 million, assuming an Offer Price of HK\$21.50 per H Share (being the mid-point of the indicative Offer Price range). In the event that the Over-allotment Option is exercised in full, we intent to apply the additional net proceeds to the above purposes in the proportions stated above.

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## UNDERWRITING

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### HONG KONG UNDERWRITERS

Morgan Stanley Asia Limited

CLSA Limited

China International Capital Corporation Hong Kong Securities Limited

ICBC International Securities Limited

CMB International Capital Limited

### UNDERWRITING

This Prospectus is published solely in connection with the Hong Kong Public Offering. The Hong Kong Public Offering is fully underwritten by the Hong Kong Underwriters on a conditional basis. The International Offering is expected to be fully underwritten by the International Underwriters subject to the terms and conditions of the International Underwriting Agreement. If, for any reason, the Offer Price is not agreed between the Joint Representatives and our Company, the Global Offering will not proceed and will lapse.

The Global Offering comprises the Hong Kong Public Offering of initially 5,725,200 Hong Kong Offer Shares and the International Offering of initially 51,523,400 International Offer Shares, subject, in each case, to reallocation on the basis as described in “Structure of the Global Offering” as well as to the Over-allotment Option.

### UNDERWRITING ARRANGEMENTS AND EXPENSES

#### Hong Kong Public Offering

##### *Hong Kong Underwriting Agreement*

Pursuant to the Hong Kong Underwriting Agreement, we are offering the Hong Kong Offer Shares for subscription by the public in Hong Kong in accordance with the terms and conditions of this Prospectus and the Application Forms relating thereto.

Subject to the Listing Committee granting listing of, and permission to deal in, the H Shares in issue and to be issued as mentioned in this Prospectus, and certain other conditions set forth in the Hong Kong Underwriting Agreement (including the Joint Representatives (on behalf of the Hong Kong Underwriters) and our Company agreeing upon the Offer Price) being satisfied (or, as the case may be, waived), the Hong Kong Underwriters have agreed to subscribe or procure subscribers for their respective applicable portions of the Hong Kong Offer Shares in aggregate, now being offered which are not taken up under the Hong Kong Public Offering on the terms and conditions of this Prospectus, the Application Forms relating thereto and the Hong Kong Underwriting Agreement.

The Hong Kong Underwriting Agreement is conditional on and subject to, among other things, the International Underwriting Agreement having been executed and becoming unconditional and not having been terminated in accordance with its terms.

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## UNDERWRITING

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### *Grounds for Termination*

The obligations of the Hong Kong Underwriters to subscribe or procure subscribers for the Hong Kong Offer Shares under the Hong Kong Underwriting Agreement are subject to termination. If at any time prior to 8:00 a.m. on the day that trading in the H Shares commences on the Stock Exchange:

- (1) there develops, occurs, exists or comes into force:
  - (a) any new law or regulation or any change or development involving a prospective change in existing law or regulation, or any change or development involving a prospective change in the interpretation or application thereof by any court or other competent authority in or affecting Hong Kong, the PRC, Singapore, the United States, the United Kingdom, the European Union (or any member thereof) or Japan (each a “**Relevant Jurisdiction**”); or
  - (b) any change or development involving a prospective change or development, or any event or series of events likely to result in or representing a change or development, or prospective change or development, in local, national, regional or international financial, political, military, industrial, economic, currency market, fiscal or regulatory or market conditions or any monetary or trading settlement system (including, without limitation, conditions in stock and bond markets, money and foreign exchange markets, the inter-bank markets and credit markets) in or affecting any Relevant Jurisdiction; or
  - (c) any event or series of events in the nature of force majeure (including, without limitation, acts of government, labour disputes, strikes, lock-outs, fire, explosion, earthquake, flooding, tsunami, civil commotion, riots, public disorder, acts of war, acts of terrorism (whether or not responsibility has been claimed), acts of God, accident or interruption in transportation, destruction of power plant, outbreak of diseases or epidemics including, but not limited to, SARS, swine or avian flu, H5N1, H1N1, H1N7, H7N9, Ebola virus, Middle East respiratory syndrome (MERS) and such related/mutated forms, economic sanction, any local, national, regional or international outbreak or escalation of hostilities (whether or not war is or has been declared) or other state of emergency or calamity or crisis, in whatever form) in or directly or indirectly affecting any Relevant Jurisdiction; or
  - (d) any moratorium, suspension or restriction (including, without limitation, any imposition of or requirement for any minimum or maximum price limit or price range) in or on trading in securities of generally on the Stock Exchange, the New York Stock Exchange, the NASDAQ Global Market, the London Stock Exchange, the Tokyo Stock Exchange, the Singapore Stock Exchange, the Shanghai Stock Exchange or the Shenzhen Stock Exchange; or

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## UNDERWRITING

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- (e) any general moratorium on commercial banking activities in or affecting any Relevant Jurisdiction or any disruption in commercial banking or foreign exchange trading or securities settlement or clearance services, procedures or matters in any Relevant Jurisdiction; or
- (f) any change or prospective change in or affecting Taxation as defined under the Hong Kong Underwriting Agreement, exchange controls, currency exchange rates or foreign investment regulations (including, without limitation, a change of the Hong Kong dollars or RMB against any foreign currencies, a change in the system under which the value of the Hong Kong dollars is linked to that of the United States dollars or RMB is linked to any foreign currency or currencies), or the implementation of any exchange control, in any Relevant Jurisdiction; or
- (g) the issue or requirement to issue by the Company of a supplemental or amendment to this prospectus, Application Forms, Preliminary Offering Circular (as defined under the Hong Kong Underwriting Agreement) or Offering Circular (as defined under the Hong Kong Underwriting Agreement) or other documents in connection with the offer and sale of the H Shares pursuant to the Companies Ordinance, the Companies (Winding Up and Miscellaneous Provisions) Ordinance or the Listing Rules or upon any requirement or request of the Stock Exchange or the SFC; or
- (h) any change or development involving a prospective change which has the effect of materialisation of any of the risks set out in the section headed “Risk Factors” in this prospectus; or
- (i) any Proceedings as defined under the Hong Kong Underwriting Agreement brought by a third party being threatened or instigated against the Company, any Controlling Shareholder or any executive Director; or
- (j) a Governmental Authority (as defined under the Hong Kong Underwriting Agreement) or a regulatory body or organisation in any Relevant Jurisdiction commencing any investigation or action or other Proceedings, or announcing an intention to investigate or take other action or Proceedings against the Company, any Controlling Shareholders or any of the chairman, president or the Director of the Company; or
- (k) any order or petition for the winding up of any member of the Group or any composition or arrangement made by any member of the Group with its creditors or a scheme of arrangement entered into by any member of the Group or any resolution for the winding-up of any member of the Group or the appointment of a provisional liquidator, receiver or manager over all or part of the material assets or undertaking of any member of the Group or anything analogous thereto occurring in respect of any member of the Group; or
- (l) the imposition of economic sanctions, in whatever form, directly or indirectly, by, or for, any Relevant Jurisdiction on the Company; or



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## UNDERWRITING

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- (m) any of the chairman, president, or executive Director of the Company vacating his/her office; or
- (n) any Director of the Company being charged with an indictable offence or prohibited by operation of Laws or otherwise disqualified from taking part in the management of a company; or
- (o) any contravention by the Company, any Controlling Shareholder, or any Director of the Companies Ordinance, the Companies (Winding Up and Miscellaneous Provisions) Ordinance, the PRC Company Law, the Listing Rules or any other applicable Laws; or
- (p) any demand by creditors for repayment of indebtedness or payment of any indebtedness of the Company or in respect of which the Company is liable prior to its stated maturity; or

which, in any such case individually or in the aggregate, in the sole and absolute opinion of the Joint Representatives (for themselves and on behalf of the Hong Kong Underwriters):

- (A) is or will be or may be materially adverse to, or materially and prejudicially affects, the assets, liabilities, business, general affairs, management, shareholder's equity, profit, losses, results of operations, position or condition (financial or otherwise), or prospects of the Company or the Group as a whole or to any present or prospective shareholder of the Company in its capacity as such; or
  - (B) has or will have or may have a Material Adverse Effect (as defined under the Hong Kong Underwriting Agreement) on the success of the Global Offering or the level of applications under the Hong Kong Public Offering or the level of interest under the International Offering; or
  - (C) makes or will make it or may make it impracticable or inadvisable or incapable to proceed with the Hong Kong Public Offering and/or the Global Offering; or
  - (D) would have or may have the effect of making a part of this Agreement (including underwriting) incapable of performance in accordance with its terms or which prevents the processing of applications and/or payments pursuant to the Global Offering or pursuant to the underwriting thereof; or
- (2) there has come to the notice of the Joint Representatives (for themselves and on behalf of the Hong Kong Underwriters):
- (a) a prohibition on the Company or the Controlling Shareholders for whatever reason from allotting, issuing, selling, or delivering any of the H Shares (including the Over-allotment Option Shares) pursuant to the terms of the Global Offering; or

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## UNDERWRITING

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- (b) that any statement contained in the Hong Kong Public Offering Documents as defined under the Hong Kong Underwriting Agreement and/or any notices, announcements, advertisements, communications issued or other documents issued or used by or on behalf of the Company in connection with the Hong Kong Public Offering (including any supplement or amendment thereto) was or has become untrue, incomplete, inaccurate, incorrect in any material respect or misleading, or any forecasts, estimate, expressions of opinion, intention or expectation expressed in the Hong Kong Public Offering Documents and/or any notices, announcements, advertisements, communications so issued or used are not fair and honest and made on reasonable grounds or, where appropriate, based on reasonable assumptions, when taken as a whole; or
- (c) non-compliance of this prospectus (or any other documents used in connection with the contemplated subscription and sale of the Offer Shares) or any aspect of the Global Offering with the Listing Rules or any other applicable Law; or
- (d) any matter has arisen or has been discovered which would, had it arisen or been discovered immediately before the date of this prospectus, not having been disclosed, constitutes a material omission from any of the Hong Kong Public Offering Documents and/or any notices, announcements, advertisements, communications or other documents issued or used by or on behalf of the Company in connection with the Hong Kong Public Offering (including any supplement or amendment thereto); or
- (e) either (i) there has been a breach of any of the representations, warranties, undertakings or provisions of either the Hong Kong Underwriting Agreement or the International Underwriting Agreement by any parties (other than any of the Hong Kong Underwriters or the International Underwriters) or (ii) any of the representations, warranties and undertakings given by any parties (other than any of the Hong Kong Underwriters or the International Underwriters) in the Hong Kong Underwriting Agreement or the International Underwriting Agreement, as applicable, is (or would when repeated be) untrue, incorrect, incomplete or misleading; or
- (f) any event, act or omission which gives or is likely to give rise to any liability of any of the Indemnifying Parties (as defined under the Hong Kong Underwriting Agreement) pursuant to the clause of indemnity under the Hong Kong Underwriting Agreement; or
- (g) any material adverse change or prospective material adverse change or development involving a prospective material adverse change, in or affecting the assets, liabilities, business, general affairs, management, prospects, shareholders' equity, profits, losses, results of operations, position or condition, financial or otherwise, or performance of any Group Company (as defined under the Hong Kong Underwriting Agreement); or

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## UNDERWRITING

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- (h) any breach of any of the obligations of the Company or the Controlling Shareholders under the Hong Kong Underwriting Agreement or the International Underwriting Agreement; or
- (i) any expert, whose consent is required for the issue of this prospectus with the inclusion of its reports, letters or opinions and references to its name included in the form and context in which it respectively appears, has withdrawn its respective consent (other than the Joint Sponsor) prior to the issue of this prospectus; or
- (j) any person (other than the Joint Sponsors) has withdrawn or is subject to withdrawal of its consent to being named in any of the Offering Documents (as defined under the Hong Kong Underwriting Agreement) or to the issue of any of the Offering Documents as defined under the Hong Kong Underwriting Agreement; or
- (k) Admission (as defined under the Hong Kong Underwriting Agreement) is refused or not granted, other than subject to customary conditions, on or before the Listing Date, or if granted, the Admission is subsequently withdrawn, cancelled, qualified (other than by customary conditions), revoked or withheld; or
- (l) the Company has withdrawn this prospectus (and/or any other documents issued or used in connection with the Global Offering) or the Global Offering; or

then the Joint Representatives may (for themselves and on behalf of the Hong Kong Underwriters), in their sole and absolute discretion and upon giving notice orally or in writing to the Company, terminate the Hong Kong Underwriting Agreement with immediate effect.

### ***Undertakings to the Stock Exchange Pursuant to the Listing Rules***

#### ***(A) Undertakings by Our Company***

Pursuant to Rule 10.08 of the Listing Rules, we have undertaken to the Stock Exchange that, no further Shares or securities convertible into equity securities of the Company (whether or not of a class already listed) shall be issued by us or form the subject of any agreement to such issue within six months from the Listing Date (whether or not such issue of Shares or securities will be completed within six months from the commencement of dealing), except (i) pursuant to the Global Offering (including any exercise of the Over-allotment Option); or (ii) in certain circumstances provided under Rule 10.08 of the Listing Rules.

#### ***(B) Undertakings by our Controlling Shareholders***

Pursuant to Rule 10.07(1) of the Listing Rules, the group of our Controlling Shareholders has collectively undertaken to the Stock Exchange that, except pursuant to the Global Offering and the Over-allotment Option, it shall not, unless in compliance with the requirements of the Listing Rule:

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## UNDERWRITING

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- (i) in the period commencing on the date by reference to which disclosure of its shareholding is made in this Prospectus and ending on the date which is six months from the Listing Date, dispose of, nor enter into any agreement to dispose of or otherwise create any options, rights, interests or encumbrances in respect of, any of the Shares in respect of which it is shown by this Prospectus to be the beneficial owner; or
- (ii) in the period of six months commencing on the date on which the period referred to in the preceding paragraph expires, dispose of, or enter into any agreement to dispose of or otherwise create, any options, rights, interests or encumbrances in respect of, any of the Shares referred to in the preceding paragraph to such an extent that immediately following such disposal, or upon the exercise or enforcement of such options, rights, interests or encumbrances, he or it would cease to be a controlling shareholder (as defined in the Listing Rules) of our Company.

Note (2) to Rule 10.07(2) of the Listing Rules provides that Rule 10.07 does not prevent the group of Controlling Shareholders from using the Shares beneficially owned by it as security (including a charge or pledge) in favor of an authorized institution (as defined in the Banking Ordinance (Chapter 155 of the Laws of Hong Kong)) for a bona fide commercial loan.

Pursuant to Note (3) to Rule 10.07(2) of the Listing Rules, the group of our Controlling Shareholders has collectively further undertaken to the Stock Exchange and to our Company that within the period commencing on the date by reference to which disclosure of its shareholding is made in this Prospectus and ending on the date which is 12 months from the Listing Date, it shall:

- (i) when it or the relevant registered holders pledge or charge any Shares beneficially owned by it in favor of an authorized institution (as defined in the Banking Ordinance, (Chapter 155 of the Laws of Hong Kong)) for a bona fide commercial loan, immediately inform our Company of such pledge or charge together with the number of Shares so pledged or charged; and
- (ii) when it or the relevant registered holders receive indications, either verbal or written, from the pledgee or chargee of any Shares that any of the pledged or charged Shares will be disposed of, immediately inform our Company in writing of such indications.

We will inform the Stock Exchange as soon as we have been informed of the matters referred to in paragraph (i) and (ii) above (if any) by any of our Controlling Shareholders and subject to the then requirements of the Listing Rules disclose such matters by way of an announcement which is published in accordance with Rule 2.07C of the Listing Rules as soon as possible.

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## UNDERWRITING

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### *Undertakings Pursuant to the Hong Kong Underwriting Agreement*

#### *(A) Undertakings by Our Company*

Our Company has undertaken to each of the Joint Representatives, the Joint Global Coordinators, the Joint Sponsors, the Joint Bookrunners, the Joint Lead Managers and the Hong Kong Underwriters that except pursuant to the Global Offering (including pursuant to the Over-allotment Option), at any time after the date of the Hong Kong Underwriting Agreement up to and including the date falling six months after the Listing Date (the “**First Six-Month Period**”), our Company will not, without the prior written consent of the Joint Sponsors and the Joint Representatives (for themselves and on behalf of the Hong Kong Underwriters) (and such consent shall not be unreasonably withheld or delayed) and unless in compliance with the requirements of the Listing Rules:

- (i) allot, issue, sell, accept subscription for, offer to allot, issue or sell, contract or agree to allot, issue or sell, assign, mortgage, charge, pledge, assign, hypothecate, lend, grant or sell any option, warrant, contract or right to subscribe for or purchase, grant or purchase any option, warrant, contract or right to allot, issue or sell, or otherwise transfer or dispose of or create an encumbrance over, or agree to transfer or dispose of or create an encumbrance over, either directly or indirectly, conditionally or unconditionally, or repurchase, any legal or beneficial interest in the share capital or any other securities of the Company, as applicable, or any interest in any of the foregoing (including, without limitation, any securities convertible into or exchangeable or exercisable for or that represent the right to receive, or any warrants or other rights to purchase any share capital or other securities of the Company, as applicable), or deposit any share capital or other securities of the Company, as applicable, with a depositary in connection with the issue of depositary receipts; or
- (ii) enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership (legal or beneficial) of the Shares or any other securities of the Company, as applicable, or any interest in any of the foregoing (including, without limitation, any securities convertible into or exchangeable or exercisable for or that represent the right to receive, or any warrants or other rights to purchase, any share capital or other securities of the Company, as applicable); or
- (iii) enter into any transaction with the same economic effect as any transaction described in Clause (i) or (ii) above; or
- (iv) offer to or agree to do any of the foregoing or announce any intention to do so,

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## UNDERWRITING

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in each case, whether any of the foregoing transactions is to be settled by delivery of share capital or such other securities, in cash or otherwise (whether or not the issue of such share capital or other securities will be completed within the First Six Month Period). The Company further agrees that, in the event the Company is allowed to enter into any of the transactions described in (i), (ii) or (iii) above or offers to or agrees to or announces any intention to effect any such transaction during the period of six months commencing on the date on which the First Six Month Period expires (the “**Second Six Month Period**”), it will take all reasonable steps to ensure that such an issue or disposal will not, and no other act of the Company will, create a disorderly or false market for any Shares or other securities of the Company. Each of the Controlling Shareholders hereby undertakes to each of the Joint Sponsors, the Joint Representatives, the Joint Global Coordinators, the Joint Bookrunners, the Joint Lead Managers and the Hong Kong Underwriters to procure the Company to comply with the undertakings above.

*(B) Undertakings by our Controlling Shareholders*

Each of the Controlling Shareholders hereby jointly and severally undertakes to each of the Company, the Joint Sponsors, the Joint Representatives, the Joint Global Coordinators, the Joint Bookrunners, the Joint Lead Managers and the Hong Kong Underwriters that, without the prior written consent of the Joint Sponsors and the Joint Representatives (for themselves and on behalf of the Hong Kong Underwriters):

- (i) he/she will not, at any time during the First Six Month Period and the Second Six Month Period:
  - (a) sell, offer to sell, contract or agree to sell, mortgage, charge, pledge, hypothecate, lend, grant or sell any option, warrant, contract or right to purchase, grant or purchase any option, warrant, contract or right to sell, or otherwise transfer or dispose of or create an encumbrance over, or agree to transfer or dispose of or create an encumbrance over, either directly or indirectly, conditionally or unconditionally, any Shares or other securities of the Company or any interest therein (including, without limitation, any securities convertible into or exchangeable or exercisable for or that represent the right to receive, or any warrants or other rights to purchase, any Shares or any such other securities, as applicable or any interest in any of the foregoing), or deposit any Shares or other securities of the Company with a depositary in connection with the issue of depositary receipts, or
  - (b) enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of any Shares or other securities of the Company or any interest therein (including, without limitation, any securities convertible into or exchangeable or exercisable for or that represent the right to receive, or any warrants or other rights to purchase, any Shares or any such other securities, as applicable or any interest in any of the foregoing), or

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## UNDERWRITING

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(c) enter into any transaction with the same economic effect as any transaction specified in (a) or (b) above, or

(d) offer to or agree to or announce any intention to effect any transaction specified in (a), (b) or (c) above,

in each case, whether any of the transactions specified in (a), (b) or (c) above is to be settled by delivery of Shares or other securities of the Company or in cash or otherwise (whether or not the issue of such Shares or other securities will be completed within the First Six Month Period and the Second Six Month Period); and

(ii) until the expiry of the First Six Month Period and the Second Six Month Period, in the event that he/she enters into any of the transactions specified in sub-clauses (a), (b) or (c) above or offers to or agrees to or announces any intention to effect any such transaction, he/she will take all reasonable steps to ensure that he/she will not create a disorderly or false market in the securities of the Company.

### ***Indemnity***

We and the Controlling Shareholders have agreed to indemnify, among others, the Joint Representatives, the Joint Global Coordinators, the Joint Sponsors and the Hong Kong Underwriters for certain losses which they may suffer, including, amongst others, losses arising from the performance of their obligations under the Hong Kong Underwriting Agreement and any breach by our Company of the Hong Kong Underwriting Agreement.

### ***Hong Kong Underwriters' Interests in Our Company***

Except for its obligations under the Hong Kong Underwriting Agreement, the Hong Kong Underwriters do not have any shareholding interest in our Company or any right or option (whether legally enforceable or not) to subscribe for or nominate persons to subscribe for securities in our Company.

Following the completion of the Global Offering, the Hong Kong Underwriters and their affiliated companies may hold a certain portion of the H Shares as a result of fulfilling their obligations under the Hong Kong Underwriting Agreement.



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## UNDERWRITING

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### **The International Offering**

#### ***International Underwriting Agreement***

In connection with the International Offering, it is expected that we and the Controlling Shareholders will enter into the International Underwriting Agreement with the Joint Representatives and the International Underwriters. Under the International Underwriting Agreement, subject to the conditions set forth therein, the International Underwriters would agree to purchase, or procure purchasers to purchase, the Offer Shares being offered pursuant to the International Offering (subject to, amongst others, any reallocation between the International Offering and the Hong Kong Public Offering). It is expected that the International Underwriting Agreement may be terminated on similar grounds as the Hong Kong Underwriting Agreement. Potential investors are reminded that in the event that the International Underwriting Agreement is not entered into, the Global Offering will not proceed.

#### ***Over-allotment Option***

We expect to grant to the International Underwriters, exercisable in whole or in part by the Joint Representatives at their sole and absolute discretion (on behalf of the International Underwriters) pursuant to the International Underwriting Agreement, the Over-allotment Option, which will be exercisable on or before the 30th day from the last day for the lodging of applications under the Hong Kong Public Offering, to require our Company to allot and issue up to an aggregate of 4,450,400 H Shares, representing no more than 7.8% of the initial Offer Shares, at the Offer Price under the Global Offering.

### **Commissions and Expenses**

The Hong Kong Underwriters will receive a gross underwriting commission equal to 3% of the aggregate Offer Price in respect of all the Hong Kong Offer Shares (excluding any International Offer Shares reallocated to and from the Hong Kong Public Offering). Our Company may also in our sole discretion pay the Hong Kong Underwriters an additional incentive fee of up to 1% of the aggregate Offer Price.

For unsubscribed Hong Kong Offer Shares reallocated to the International Offering (in such proportion as the Joint Representatives (for themselves and on behalf of the Hong Kong Underwriters) in their sole discretion consider appropriate), the underwriting commission regarding such Hong Kong Offer Shares shall be reallocated to the International Underwriters (in such proportion as the Joint Representatives in their sole discretion consider appropriate).

Assuming the Over-allotment Option is not exercised, the aggregate commissions and fees, together with Stock Exchange listing fees, SFC transaction levy and Stock Exchange trading fee, legal and other professional fees and printing and other expenses relating to the Global Offering, which are currently estimated to amount in aggregate to approximately HK\$107.3 million (assuming an Offer Price of HK\$21.50 per Offer Share, being the mid-point of the indicative Offering Price range stated in this Prospectus), are payable and borne by our Company.



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## UNDERWRITING

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### INDEPENDENCE OF JOINT SPONSORS

Each of the Joint Sponsors satisfies the independence criteria applicable to sponsors set out in Rule 3A.07 of the Listing Rules.

### ACTIVITIES BY SYNDICATE MEMBERS

The underwriters of the Hong Kong Public Offering and the International Offering (together, the “**Syndicate Members**”) and their affiliates may each individually undertake a variety of activities (as further described below) which do not form part of the underwriting or stabilizing process.

The Syndicate Members and their affiliates are diversified financial institutions with relationships in countries around the world. These entities engage in a wide range of commercial and investment banking, brokerage, funds management, trading, hedging, investing and other activities for their own account and for the account of others. In relation to the H Shares, those activities could include acting as agent for buyers and sellers of the H Shares, entering into transactions with those buyers and sellers in a principal capacity, proprietary trading in the H Shares, and entering into over the counter or listed derivative transactions or listed and unlisted securities transactions (including issuing securities such as derivative warrants listed on a stock exchange) which have as their underlying assets, assets including the H Shares. Those activities may require hedging activity by those entities involving, directly or indirectly, the buying and selling of the H Shares. All such activity could occur in Hong Kong and elsewhere in the world and may result in the Syndicate Members and their affiliates holding long and/or short positions in the H Shares, in baskets of securities or indices including the H Shares, in units of funds that may purchase the H Shares, or in derivatives related to any of the foregoing.

In relation to issues by the Syndicate Members or their affiliates of any listed securities having the H Shares as their underlying securities, whether on the Stock Exchange or on any other stock exchange, the rules of the exchange may require the issuer of those securities (or one of its affiliates or agents) to act as a market maker or liquidity provider in the security, and this will also result in hedging activity in the H Shares in most cases.

All such activities may occur both during and after the end of the stabilizing period described in “Structure of the Global Offering.” Such activities may affect the market price or value of the H Shares, the liquidity or trading volume in the H Shares and the volatility of the price of the H Shares, and the extent to which this occurs from day to day cannot be estimated.

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## UNDERWRITING

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It should be noted that when engaging in any of these activities, the Syndicate Members will be subject to certain restrictions, including the following:

- (a) the Syndicate Members (other than the Stabilizing Manager) must not, in connection with the distribution of the Offer Shares, effect any transactions (including issuing or entering into any option or other derivative transactions relating to the Offer Shares), whether in the open market or otherwise, with a view to stabilizing or maintaining the market price of any of the Offer Shares at levels other than those which might otherwise prevail in the open market; and
- (b) the Syndicate Members must comply with all applicable laws and regulations, including the market misconduct provisions of the SFO, including the provisions prohibiting insider dealing, false trading, price rigging and stock market manipulation.

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## STRUCTURE OF THE GLOBAL OFFERING

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### THE GLOBAL OFFERING

This Prospectus is published in connection with the Hong Kong Public Offering as part of the Global Offering. The Global Offering comprises:

- (a) the Hong Kong Public Offering of 5,725,200 Offer Shares (subject to adjustment as mentioned below) for subscription by the public in Hong Kong as described in “– The Hong Kong Public Offering” below; and
- (b) the International Offering of an aggregate of 51,523,400 Offer Shares (subject to adjustment and the Over-allotment Option as mentioned below) outside the United States (including to professional and institutional investors within Hong Kong) in offshore transactions in reliance on Regulation S and in the United States only to QIBs in reliance on Rule 144A or any other available exemption from registration under the U.S. Securities Act as described in “– The International Offering” below.

Investors may apply for Offer Shares under the Hong Kong Public Offering or indicate an interest for Offer Shares under the International Offering, but may not do both.

The Offer Shares will represent approximately 26.2% of the enlarged issued share capital of our Company immediately after completion of the Global Offering without taking into account the exercise of the Over-allotment Option. If the Over-allotment Option is exercised in full, the Offer Shares will represent approximately 27.7% of the enlarged issued share capital of our Company immediately after completion of the Global Offering and the exercise of the Over-allotment Option as set out in “– The International Offering – Over-allotment Option.”

References in this Prospectus to applications, Application Forms, application monies or the procedure for application relate solely to the Hong Kong Public Offering.

The number of Offer Shares to be offered under the Hong Kong Public Offering and the International Offering, respectively, may be subject to reallocation as described in “– The Hong Kong Public Offering – Reallocation.”

### THE HONG KONG PUBLIC OFFERING

#### Number of Hong Kong Offer Shares Initially Offered

We are initially offering 5,725,200 Offer Shares for subscription by the public in Hong Kong at the Offer Price, representing approximately 10.0% of the total number of Offer Shares initially available under the Global Offering. Subject to the reallocation of Offer Shares between the International Offering and the Hong Kong Public Offering and assuming that the Over-allotment Option is not exercised, the Hong Kong Offer Shares will represent approximately 2.6% of our Company’s enlarged issued share capital immediately after the completion of the Global Offering. The Hong Kong Public Offering is open to members of the

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## STRUCTURE OF THE GLOBAL OFFERING

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public in Hong Kong as well as to institutional and professional investors. Professional investors generally include brokers, dealers, companies (including fund managers) whose ordinary business involves dealing in shares and other securities, and corporate entities which regularly invest in shares and other securities.

Completion of the Hong Kong Public Offering is subject to the conditions as set forth in “– Conditions of the Global Offering.”

### **Allocation**

The allocation of Offer Shares to investors under the Hong Kong Public Offering will be based solely on the level of valid applications received under the Hong Kong Public Offering. The basis of allocation may vary, depending on the number of Hong Kong Offer Shares validly applied for by applicants. Such allocation could, where appropriate, consist of balloting, which would mean that some applicants may receive a higher allocation than others who have applied for the same number of Hong Kong Offer Shares, and those applicants who are not successful in the ballot may not receive any Hong Kong Offer Shares.

The total number of Offer Shares available under the Hong Kong Public Offering (after taking into account of any reallocation) is to be divided into two pools for allocation purposes: Pool A and Pool B with any odd board lots being allocated to Pool A. Accordingly, the maximum number of Hong Kong Offer Shares initially in Pool A and Pool B will be 2,862,600 and 2,862,600, respectively. The Offer Shares in Pool A will be allocated on an equitable basis to applicants who have applied for Offer Shares with an aggregate price of HK\$5 million (excluding the brokerage, SFC transaction levy and the Stock Exchange trading fee payable) or less. The Offer Shares in Pool B will be allocated on an equitable basis to applicants who have applied for Offer Shares with an aggregate price of more than HK\$5 million (excluding the brokerage, SFC transaction levy and the Stock Exchange trading fee payable). Investors should be aware that applications in Pool A and applications in Pool B may receive different allocation ratios. If Offer Shares in one (but not both) of the pools are under-subscribed, the surplus Offer Shares will be transferred to the other pool to satisfy demand in that other pool and be allocated accordingly. For the purpose of this paragraph only, the “price” for Offer Shares means the price payable on application therefore (without regard to the Offer Price as finally determined). Applicants can only receive an allocation of Offer Shares from either Pool A or Pool B but not from both pools. Multiple applications or suspected multiple applications and any application for more than 2,862,600 Hong Kong Offer Shares (being 50.0% of the 5,725,200 Hong Kong Offer Shares initially available under the Hong Kong Public Offering) are liable to be rejected.

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## STRUCTURE OF THE GLOBAL OFFERING

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### Reallocation

The allocation of Offer Shares between the Hong Kong Public Offering and the International Offering is subject to adjustment. Paragraph 4.2 of Practice Note 18 of the Listing Rules requires a clawback mechanism to be put in place which would have the effect of increasing the number of Offer Shares under the Hong Kong Public Offering to a certain percentage of the total number of Offer Shares offered under the Global Offering if certain prescribed total demand levels are reached as further described below:

- if the number of Offer Shares validly applied for under the Hong Kong Public Offering represents 15 times or more but less than 50 times the number of Offer Shares initially available for subscription under the Hong Kong Public Offering, then the number of Offer Shares to be reallocated to the Hong Kong Public Offering from the International Offering will be increased so that the total number of Offer Shares available under the Hong Kong Public Offering will be 17,174,800 Offer Shares, representing approximately 30% of the Offer Shares initially available under the Global Offering;
- if the number of Offer Shares validly applied for under the Hong Kong Public Offering represents 50 times or more but less than 100 times the number of Offer Shares initially available for subscription under the Hong Kong Public Offering, then the number of Offer Shares to be reallocated to the Hong Kong Public Offering from the International Offering will be increased so that the total number of Offer Shares available under the Hong Kong Public Offering will be 22,899,600 Offer Shares, representing approximately 40% of the Offer Shares initially available under the Global Offering; and
- if the number of Offer Shares validly applied for under the Hong Kong Public Offering represents 100 times or more the number of Offer Shares initially available for subscription under the Hong Kong Public Offering, then the number of Offer Shares to be reallocated to the Hong Kong Public Offering from the International Offering will be increased so that the total number of Offer Shares available under the Hong Kong Public Offering will be 28,624,400 Offer Shares, representing approximately 50% of the Offer Shares initially available under the Global Offering.

In addition, the Offer Shares to be offered in the Hong Kong Public Offering and the International Offering may in certain circumstances be reallocated as between these offerings at the discretion of the Joint Representatives. In accordance with Guidance Letter HKEX-GL91-18 issued by the Stock Exchange, if such reallocation is done other than pursuant to Practice Note 18 of the Listing Rules, the maximum total number of shares that may be allocated to the Hong Kong Public Offering shall be not more than 11,450,400 Offer Shares, representing double of the initial allocation to the Hong Kong Public Offering and the final Offer Price shall be fixed at HK\$21.00 per Offer Share, the low-end of the Offer Price range stated in this Prospectus.

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## STRUCTURE OF THE GLOBAL OFFERING

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Any such clawback and reallocation between the International Offering and the Hong Kong Public Offering will be completed prior to any adjustments of the number of the Offer Shares pursuant to the exercise of the Over-allotment Option, if any.

In each case, the additional Offer Shares reallocated to the Hong Kong Public Offering will be allocated between Pool A and Pool B and the number of Offer Shares allocated to the International Offering will be correspondingly reduced in such manner as the Joint Representatives in their sole discretion consider appropriate.

### **Applications**

Each applicant under the Hong Kong Public Offering will also be required to give an undertaking and confirmation in the Application Form submitted by him/her that he/she and any person(s) for whose benefit he/she is making the application have not applied for or taken up, or indicated an interest for, and will not apply for or take up, or indicate an interest for, any Offer Shares under the International Offering, and such applicant's application is liable to be rejected if the said undertaking and/or confirmation is breached and/or untrue (as the case may be) or it has been or will be placed or allocated Offer Shares under the International Offering.

Applicants under the Hong Kong Public Offering are required to pay, on application, the maximum price of HK\$22.00 per Offer Share in addition to the brokerage, SFC transaction levy and Stock Exchange trading fee payable on each Offer Share. If the Offer Price, as finally determined in the manner described in “– Pricing and Allocation,” is less than the maximum price of HK\$22.00 per Offer Share, appropriate refund payments (including the brokerage, SFC transaction levy and Stock Exchange trading fee attributable to the surplus application monies) will be made to successful applicants, without interest. For details, please see “How to Apply for Hong Kong Offer Shares.”

## **THE INTERNATIONAL OFFERING**

### **Number of International Offer Shares Initially Offered**

Subject to reallocation as described in this section and the exercise of the Over-allotment Option, the International Offering will consist of an initial offering of 51,523,400 Offer Shares, representing approximately 90.0% of the total number of Offer Shares initially available under the Global Offering subject to the reallocation of Offer Shares between the International Offering and the Hong Kong Public Offering and assuming that the Over-allotment Option is not exercised.

### **Allocation**

The International Offering will include selective marketing of Offer Shares to institutional and professional investors and other investors anticipated to have a sizeable demand for such Offer Shares. Professional investors generally include brokers, dealers, companies (including fund managers) whose ordinary business involves dealing in shares and

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## STRUCTURE OF THE GLOBAL OFFERING

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other securities and corporate entities which regularly invest in shares and other securities. Allocation of Offer Shares pursuant to the International Offering will be effected in accordance with the “book-building” process described in “– Pricing and Allocation” and based on a number of factors, including the level and timing of demand, the total size of the relevant investor’s invested assets or equity assets in the relevant sector and whether or not it is expected that the relevant investor is likely to buy further Offer Shares, and/or hold or sell its Offer Shares, after the listing of the Offer Shares on the Stock Exchange. Such allocation is intended to result in a distribution of the Offer Shares on a basis which would lead to the establishment of a solid professional and institutional shareholder base to the benefit of our Company and its shareholders as a whole.

The Joint Representatives (for themselves and on behalf of the International Underwriters) may require any investor who has been offered International Offer Shares under the International Offering, and who has made an application under the Hong Kong Public Offering, to provide sufficient information to the Joint Representatives so as to allow it to identify the relevant applications under the Hong Kong Public Offering and to ensure that they are excluded from any application of Offer Shares under the Hong Kong Public Offering.

### **Reallocation**

The total number of Offer Shares to be issued or sold pursuant to the International Offering may change as a result of the clawback arrangement described in “– The Hong Kong Public Offering – Reallocation,” the exercise of the Over-allotment Option in whole or in part and/or any reallocation of unsubscribed Offer Shares originally included in the Hong Kong Public Offering to the International Offering.

### **Over-allotment Option**

Our Company expects to grant to the International Underwriters, exercisable in whole or in part by the Joint Representatives at their sole and absolute discretion (on behalf of the International Underwriters), the Over-allotment Option, which will be exercisable from the Listing Date until 30 days after the last day for the lodging of applications under the Hong Kong Public Offering, to require our Company to allot and issue up to an aggregate of 4,450,400 Shares, representing no more than 7.8% of the Offer Shares initially available under the Global Offering, at the Offer Price. If the Over-allotment Option is exercised in full, the Offer Shares will represent 27.7% of our Company’s issued share capital immediately following completion of the Global Offering and the exercise of the Over-allotment Option. In the event that the Over-allotment Option is exercised, we will make an announcement in due course.

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## STRUCTURE OF THE GLOBAL OFFERING

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### STABILIZATION

Stabilization is a practice used by underwriters in some markets to facilitate the distribution of securities. To stabilize, the underwriters may bid for, or purchase, the newly issued securities in the secondary market, during a specified period of time, to retard and, if possible, prevent any decline in the market price of the securities below the offer price. In Hong Kong and a number of other jurisdictions, activity aimed at reducing the market price is prohibited, and the price at which stabilization is effected is not permitted to exceed the offer price.

In connection with the Global Offering, the Stabilizing Manager (or any person acting for it) on behalf of the Underwriters, may, to the extent permitted by applicable laws of Hong Kong or elsewhere, over-allocate or effect transactions with a view to stabilizing or supporting the market price of the H Shares at a level higher than that which might otherwise prevail for a limited period after the Listing Date. However, there is no obligation on the Stabilizing Manager to conduct any such stabilizing action. Such stabilization action, if commenced, may be discontinued at any time, and is required to be brought to an end within 30 days after the last day for the lodging of applications under the Hong Kong Public Offering. Should stabilizing transactions be effected in connection with the Global Offering, this will be at the absolute discretion of the Stabilizing Manager.

Stabilizing action permitted in Hong Kong pursuant to the Securities and Futures (Price Stabilizing) Rules (Chapter 571W of the Laws of Hong Kong), as amended, includes (i) over-allocation for the purpose of preventing or minimizing any reduction in the market price of the H Shares, (ii) selling or agreeing to sell the H Shares so as to establish a short position in them for the purpose of preventing or minimizing any reduction in the market price of the H Shares, (iii) purchasing or subscribing for, or agreeing to purchase or subscribe for, the H Shares pursuant to the Over-allotment Option in order to close out any position established under (i) or (ii) above, (iv) purchasing, or agreeing to purchase, any of the H Shares for the sole purpose of preventing or minimizing any reduction in the market price of the H Shares, (v) selling or agreeing to sell any H Shares in order to liquidate any position established as a result of those purchases and (vi) offering or attempting to do anything as described in paragraph (ii), (iii), (iv) or (v).

Specifically, prospective applicants for and investors in the Offer Shares should note that:

- the Stabilizing Manager (or any person acting for it) may, in connection with the stabilizing action, maintain a long position in the H Shares;
- there is no certainty regarding the extent to which and the time or period for which the Stabilizing Manager will maintain such a long position;
- liquidation of any such long position by the Stabilizing Manager may have an adverse impact on the market price of the H Shares;



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## STRUCTURE OF THE GLOBAL OFFERING

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- no stabilizing action can be taken to support the price of the H Shares for longer than the stabilizing period which will begin on the Listing Date, and is expected to expire on Saturday, April 20, 2019, being the 30th day after the last day for the lodging of applications under the Hong Kong Public Offering. After this date, when no further stabilizing action may be taken, demand for the H Shares, and therefore the price of the H Shares, could fall;
- the price of the H Shares cannot be assured to stay at or above the Offer Price by the taking of any stabilizing action; and
- stabilizing bids may be made or transactions effected in the course of the stabilizing action at any price at or below the Offer Price, which means that stabilizing bids may be made or transactions effected at a price below the price paid by applicants for, or investors in, the H Shares.

The Company will ensure or procure that an announcement in compliance with the Securities and Futures (Price Stabilizing) Rules (Chapter 571W of the Laws of Hong Kong) will be made within seven days of the expiration of the stabilization period.

### **Over-allocation**

Following any over-allocation of H Shares in connection with the Global Offering, Joint Representatives, or any person acting for them may cover such over-allocation by, amongst others, using H Shares purchased by the Stabilizing Manager (or any person acting for it) in the secondary market, exercising the Over-allotment Option in full or in part, or by a combination of these means.

Any such purchases will be made in accordance with the laws, rules and regulations in place in Hong Kong on stabilization. The number of H Shares which can be over-allocated will not exceed the number of H Shares which may be allotted and issued pursuant to the exercise in full of the Over-allotment Option, being 4,450,400 Shares, representing approximately 7.8% of the Offer Shares initially available under the Global Offering.

### **PRICING AND ALLOCATION**

The International Underwriters will be soliciting from prospective investors indications of interest in acquiring Offer Shares in the International Offering. Prospective professional and institutional investors will be required to specify the number of Offer Shares under the International Offering they would be prepared to acquire either at different price or at a particular price. This process, known as “book-building,” is expected to continue up to, and to cease on or about, the last day for lodging applications under the Hong Kong Public Offering.

The Offer Price is expected to be fixed by agreement between our Company and the Joint Representatives (on behalf of the Underwriters) on the Price Determination Date, which is expected to be on or around Friday, March 22, 2019 and in any event no later than Wednesday, March 27, 2019. The number of Offer Shares to be allocated under the various offerings will be determined shortly thereafter.

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## STRUCTURE OF THE GLOBAL OFFERING

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The Offer Price will not be more than HK\$22.00 per Offer Share and is expected to be not less than HK\$21.00 per Offer Share unless otherwise announced, as further explained below, not later than the morning of the last day for lodging applications under the Hong Kong Public Offering. Prospective investors should be aware that the Offer Price to be determined on the Price Determination Date may be, but is not expected to be, lower than the indicative Offer Price range stated in this Prospectus.

### **Reduction in Offer Price range and/or number of Offer Shares**

If, based on the level of interest expressed by prospective institutional, professional and other investors during the book-building process, the Joint Representatives (on behalf of the Underwriters) considers it appropriate and together with the Company's consent, the number of Offer Shares and/or the indicative Offer Price range may be reduced below that stated in this Prospectus at any time prior to the morning of the last day for lodging applications under the Hong Kong Public Offering.

In such a case, the Company will as soon as practicable following the decision to make any such reduction, and in any event not later than the morning of the last day for lodging applications under the Hong Kong Public Offering:

- (a) issue a supplemental prospectus, as the relevant laws or government authority or regulatory authorities may require as soon as practicable following the decision to make the change, updating investors of the change in the indicative Offer Price together with an update of all financial and other information in connection with such change;
- (b) extend the period under which the Global Offering was open for acceptance to allow potential investors sufficient time to consider their subscriptions or reconsider their existing subscriptions; and
- (c) give potential investors who had applied for the Offer Shares the right to withdraw their applications given the change in circumstances.

In the absence of the publication of any such notice, the Offer Price shall under no circumstances be set outside the Offer Price range indicated in this Prospectus. If the number of Offer Shares and/or the indicative Offer Price range is reduced, applicants who have submitted an application under the Hong Kong Public Offering will be entitled to withdraw their applications unless positive confirmations from the applicants to proceed are received.

Before submitting applications for Hong Kong Offer Shares, applicants should have regard to the possibility that any announcement of a reduction in the indicative Offer Price range and/or number of Offer Shares may not be made until the day which is the last day for lodging applications under the Hong Kong Public Offering.

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## STRUCTURE OF THE GLOBAL OFFERING

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In the event of a reduction in the number of Offer Shares, the Joint Representatives may, at their discretion, reallocate the number of Offer Shares to be offered in the Hong Kong Public Offering and the International Offering, provided that the number of Offer Shares comprised in the Hong Kong Public Offering shall not be less than 10.0% of the total number of Offer Shares available under the Global Offering. The Offer Shares to be offered in the Hong Kong Public Offering and the Offer Shares to be offered in the International Offering may, in certain circumstances, be reallocated between these offerings solely in the discretion of the Joint Representatives but the number of Offer Shares to be offered in the Hong Kong Public Offering shall not in any event be less than 10.0% of the total number of Offer Shares available under the Global Offering.

If applications for the Offer Shares have been submitted prior to the day which is the last day for lodging applications under the Hong Kong Public Offering, such applications can be subsequently withdrawn if the number of Offer Shares and/or the indicative Offer Price range is so reduced.

The net proceeds from the Global Offering accruing to us (after deduction of underwriting fees and estimated expenses payable by us in relation to the Global Offering, assuming the Over-allotment Option is not exercised) are estimated to be approximately HK\$1,123.5 million, assuming an Offer Price of HK\$21.50 per Offer Share, being the approximate mid-point of the proposed Offer Price range of HK\$21.00 to HK\$22.00.

The final Offer Price, the level of indications of interest in the International Offering, the level of applications in the Hong Kong Public Offering and the basis of allocations of Offer Shares under the Hong Kong Public Offering are expected to be announced on Wednesday, March 27, 2019 in South China Morning Post (in English) and Hong Kong Economic Times (in Chinese) and on the website of our Company ([www.cansinotech.com](http://www.cansinotech.com)) and the website of the Stock Exchange ([www.hkexnews.hk](http://www.hkexnews.hk)).

### HONG KONG UNDERWRITING AGREEMENT

The Hong Kong Public Offering is fully underwritten by the Hong Kong Underwriters under the terms of the Hong Kong Underwriting Agreement and is subject to our Company and the Joint Representatives (on behalf of the Underwriters) agreeing on the Offer Price.

We expect to enter into the International Underwriting Agreement relating to the International Offering on the Price Determination Date.

The underwriting arrangements under the Hong Kong Underwriting Agreement and the International Underwriting Agreement are summarized in “Underwriting.”

### CONDITIONS OF THE GLOBAL OFFERING

Acceptances of all applications for Offer Shares will be conditional on:

- (a) the Listing Committee granting listing of, and permission to deal in, the H Shares in issue and to be issued as described in this Prospectus (including the additional H Shares which may be issued pursuant to the exercise of the Over-allotment Option);

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## STRUCTURE OF THE GLOBAL OFFERING

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- (b) the Offer Price having been agreed between our Company and the Joint Representatives (on behalf of the Underwriters) on the Price Determination Date;
- (c) the execution and delivery of the International Underwriting Agreement on or about the Price Determination Date; and
- (d) the obligations of the Underwriters under each of the respective Underwriting Agreements becoming and remaining unconditional and not having been terminated in accordance with the terms of the respective Underwriting Agreements,

in each case on or before the dates and times specified in the Underwriting Agreements (unless and to the extent such conditions are validly waived on or before such dates and times).

If, for any reason, the Offer Price is not agreed between our Company and the Joint Representatives (on behalf of the Underwriters) on or before Wednesday, March 27, 2019, the Global Offering will not proceed and will lapse.

The consummation of each of the Hong Kong Public Offering and the International Offering is conditional upon, amongst others, the other offering becoming unconditional and not having been terminated in accordance with its terms.

If the above conditions are not fulfilled or waived prior to the times and dates specified, the Global Offering will lapse and the Stock Exchange will be notified immediately. We will as soon as possible publish or cause to be published a notice of the lapse of the Hong Kong Public Offering in South China Morning Post (in English) and Hong Kong Economic Times (in Chinese) and on the website of our Company ([www.cansinotech.com](http://www.cansinotech.com)) and the website of the Stock Exchange ([www.hkexnews.hk](http://www.hkexnews.hk)). In such eventuality, all application monies will be returned, without interest, on the terms set forth “How to Apply for Hong Kong Offer Shares – 14. Dispatch/Collection of Share Certificates and Refund Monies.” In the meantime, all application monies will be held in a separate bank account(s) with the receiving bank or other bank(s) in Hong Kong licensed under the Banking Ordinance (Chapter 155 of the Laws of Hong Kong), as amended.

Share certificates issued in respect of the Hong Kong Offer Shares will only become valid at 8:00 a.m. on the Listing Date provided that the Global Offering has become unconditional in all respects (including the Underwriting Agreements not having been terminated in accordance with their terms) at any time prior to 8:00 a.m. on the Listing Date.

### APPLICATION FOR LISTING ON THE STOCK EXCHANGE

We have applied to the Listing Committee for the listing of, and permission to deal in, the H Shares in issue and to be issued pursuant to the Global Offering (including pursuant to the exercise of the Over-allotment Option).

No part of our Company’s share or loan capital is listed on or dealt in on any other stock exchange and no such listing or permission to deal is being or proposed to be sought in the near future.

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## STRUCTURE OF THE GLOBAL OFFERING

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### SHARES WILL BE ELIGIBLE FOR CCASS

All necessary arrangements have been made to enable the H Shares to be admitted into CCASS. If the Stock Exchange grants the listing of, and permission to deal in, the H Shares and we comply with the stock admission requirements of HKSCC, the H Shares will be accepted as eligible securities by HKSCC for deposit, clearance and settlement in CCASS with effect from the date of commencement of dealings in the H Shares on the Stock Exchange or any other date HKSCC chooses. Settlement of transactions between Exchange Participants (as defined in the Listing Rules) is required to take place in CCASS on the second business day after any trading day. All activities under CCASS are subject to the General Rules of CCASS and CCASS Operational Procedures in effect from time to time. Investors should seek the advice of their stockbroker or other professional advisers for details of the settlement arrangements as such arrangements may affect their rights and interests.

### DEALING ARRANGEMENTS

Assuming that the Hong Kong Public Offering becomes unconditional at or before 8:00 a.m. in Hong Kong on Thursday, March 28, 2019, it is expected that dealings in the H Shares on the Stock Exchange will commence at 9: 00 a.m. on Thursday, March 28, 2019. The H Shares will be traded on the Main Board of the Stock Exchange in board lots of 200 H Shares each and the stock code of the H Shares will be 6185.

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## HOW TO APPLY FOR HONG KONG OFFER SHARES

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### 1. HOW TO APPLY

If you apply for Hong Kong Offer Shares, then you may not apply for or indicate an interest for International Offer Shares.

To apply for Hong Kong Offer Shares, you may:

- use a **WHITE** or **YELLOW** Application Form;
- apply online via the **White Form eIPO** service at [www.eipo.com.hk](http://www.eipo.com.hk); or
- electronically cause HKSCC Nominees to apply on your behalf.

None of you or your joint applicant(s) may make more than one application, except where you are a nominee and provide the required information in your application.

The Company, the Joint Representatives, the **White Form eIPO** Service Provider and their respective agents may reject or accept any application in full or in part for any reason at their discretion.

### 2. WHO CAN APPLY

You can apply for Hong Kong Offer Shares on a **WHITE** or **YELLOW** Application Form if you or the person(s) for whose benefit you are applying:

- are 18 years of age or older;
- have a Hong Kong address;
- are outside the United States, and are not a United States Person (as defined in Regulation S under the U.S. Securities Act); and
- are not a legal or natural person of the PRC.

If you apply online through the **White Form eIPO** service, in addition to the above, you must also: (i) have a valid Hong Kong identity card number; and (ii) provide a valid e-mail address and a contact telephone number.

If you are a firm, the application must be in the individual members' names. If you are a body corporate, the Application Form must be signed by a duly authorized officer, who must state his representative capacity, and stamped with your corporation's chop.

If an application is made by a person under a power of attorney, the Joint Representatives may accept it at their discretion and on any conditions they think fit, including evidence of the attorney's authority.

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## HOW TO APPLY FOR HONG KONG OFFER SHARES

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The number of joint applicants may not exceed four and they may not apply by means of **White Form eIPO** service for the Hong Kong Offer Shares.

Unless permitted by the Listing Rules or any relevant waivers that have been granted by the Stock Exchange, you cannot apply for any Hong Kong Offer Shares if you are:

- an existing beneficial owner of Shares in the Company and/or any of its subsidiaries;
- a Director or chief executive officer of the Company and/or any of its subsidiaries;
- a connected person (as defined in the Listing Rules) of the Company or will become a connected person of the Company immediately upon completion of the Global Offering;
- an associate or close associate (as defined in the Listing Rules) of any of the above; or
- have been allocated or have applied for or indicated an interest in any Offer Shares under the International Offering.

### 3. APPLYING FOR HONG KONG OFFER SHARES

#### Which application channel to use

For Hong Kong Offer Shares to be issued in your own name, use a **WHITE** Application Form or apply online through [www.eipo.com.hk](http://www.eipo.com.hk).

For Hong Kong Offer Shares to be issued in the name of HKSCC Nominees and deposited directly into CCASS to be credited to your or a designated CCASS Participant's stock account, use a **YELLOW** Application Form or electronically instruct HKSCC via CCASS to cause HKSCC Nominees to apply for you.

#### Where to Collect the Application Forms

You can collect a **WHITE** Application Form and a Prospectus during normal business hours from 9:00 a.m. on Monday, March 18, 2019 until 12:00 noon on Thursday, March 21, 2019:

- (i) any of the following offices of the Hong Kong Underwriters:
  - (a) Morgan Stanley Asia Limited, at 46/F, International Commerce Centre, 1 Austin Road West, Kowloon, Hong Kong;
  - (b) CLSA Limited, at 18/F One Pacific Place, 88 Queensway, Hong Kong;
  - (c) China International Capital Corporation Hong Kong Securities Limited, at 29/F One International Finance Centre, 1 Harbour View Street, Central, Hong Kong;
  - (d) ICBC International Securities Limited, at 37/F ICBC Tower, 3 Garden Road, Hong Kong; and
  - (e) CMB International Capital Limited, at 45/F, Champion Tower, 3 Garden Road, Central, Hong Kong.

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## HOW TO APPLY FOR HONG KONG OFFER SHARES

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(ii) any of the following branches of the receiving bank:

### Bank of China (Hong Kong) Limited

<u>District</u>	<u>Branch name</u>	<u>Address</u>
<b>Hong Kong Island</b>	Sheung Wan Branch	Shop 1-4, G/F, Tung Hip Commercial Building, 244-248 Des Voeux Road Central, Hong Kong
	North Point (King's Centre) Branch	193-209 King's Road, North Point, Hong Kong
<b>Kowloon</b>	Ma Tau Kok Road Branch	39-45 Ma Tau Kok Road, To Kwa Wan, Kowloon
	Yau Ma Tei Branch	471 Nathan Road, Yau Ma Tei, Kowloon
<b>New Territories</b>	Yuen Long Branch	102-108 Castle Peak Road, Yuen Long, New Territories

You can collect a **YELLOW** Application Form and a Prospectus during normal business hours from 9:00 a.m. on Monday, March 18, 2019 until 12:00 noon on Thursday, March 21, 2019 from the Depository Counter of HKSCC at 1/F, One & Two Exchange Square, 8 Connaught Place, Central, Hong Kong or from your stockbroker.

### Time for Lodging Application Forms

Your completed **WHITE** or **YELLOW** Application Form, together with a cheque or a banker's cashier order attached and marked payable to "BANK OF CHINA (HONG KONG) NOMINEES LIMITED – CANSINO BIO PUBLIC OFFERING" for the payment, should be deposited in the special collection boxes provided at any of the branches of the receiving bank listed above, at the following times:

- |                             |                           |
|-----------------------------|---------------------------|
| • Monday, March 18, 2019    | – 9:00 a.m. to 5:00 p.m.  |
| • Tuesday, March 19, 2019   | – 9:00 a.m. to 5:00 p.m.  |
| • Wednesday, March 20, 2019 | – 9:00 a.m. to 5:00 p.m.  |
| • Thursday, March 21, 2019  | – 9:00 a.m. to 12:00 noon |

The application lists will be open from 11:45 a.m. to 12:00 noon on Thursday, March 21, 2019, the last application day or such later time as described in "How to Apply for Hong Kong Offer Shares – 10. Effect of Bad Weather on the Opening of the Application Lists."



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## HOW TO APPLY FOR HONG KONG OFFER SHARES

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### 4. TERMS AND CONDITIONS OF AN APPLICATION

Follow the detailed instructions in the Application Forms carefully; otherwise, your application may be rejected.

By submitting an Application Form or applying through the **White Form eIPO** service, among other things, you:

- (i) undertake to execute all relevant documents and instruct and authorize the Company and/or the Joint Representatives (or their agents or nominees), as agents of the Company, to execute any documents for you and to do on your behalf all things necessary to register any Hong Kong Offer Shares allocated to you in your name as required by the Articles of Association;
- (ii) agree to comply with the Companies Ordinance, the Companies (Winding Up and Miscellaneous Provisions) Ordinance and the Articles of Association;
- (iii) confirm that you have read the terms and conditions and application procedures set out in this Prospectus and in the Application Forms and agree to be bound by them;
- (iv) confirm that you have received and read this Prospectus and have only relied on the information and representations contained in this Prospectus in making your application and will not rely on any other information or representations except those in any supplement to this Prospectus;
- (v) confirm that you are aware of the restrictions on the Global Offering in this Prospectus;
- (vi) agree that none of the Company, the Joint Representatives, the Joint Global Coordinators, the Joint Sponsors, the Joint Bookrunners, the Joint Lead Managers, the Underwriters, their respective directors, officers, employees, partners, agents, advisers and any other parties involved in the Global Offering is or will be liable for any information and representations not in this Prospectus (and any supplement to it);
- (vii) undertake and confirm that you or the person(s) for whose benefit you have made the application have not applied for or taken up, or indicated an interest for, and will not apply for or take up, or indicate an interest for, any Offer Shares under the International Offering nor participated in the International Offering;
- (viii) agree to disclose to the Company, the H Share Registrar, receiving bank, the Joint Representatives, the Joint Global Coordinators, the Joint Sponsors, the Joint Bookrunners, the Joint Lead Managers, the Underwriters and/or their respective advisers and agents any personal data which they may require about you and the person(s) for whose benefit you have made the application;

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## HOW TO APPLY FOR HONG KONG OFFER SHARES

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- (ix) if the laws of any place outside Hong Kong apply to your application, agree and warrant that you have complied with all such laws and none of the Company, the Joint Sponsors, the Joint Representatives, the Joint Global Coordinators, the Joint Bookrunners, the Joint Lead Managers and the Underwriters nor any of their respective officers or advisers will breach any law outside Hong Kong as a result of the acceptance of your offer to purchase, or any action arising from your rights and obligations under the terms and conditions contained in this Prospectus and the Application Forms;
- (x) agree that once your application has been accepted, you may not rescind it because of an innocent misrepresentation;
- (xi) agree that your application will be governed by the laws of Hong Kong;
- (xii) represent, warrant and undertake that (i) you understand that the Hong Kong Offer Shares have not been and will not be registered under the U.S. Securities Act; and (ii) you and any person for whose benefit you are applying for the Hong Kong Offer Shares are outside the United States (as defined in Regulation S) or are a person described in paragraph (h)(3) of Rule 902 of Regulation S;
- (xiii) warrant that the information you have provided is true and accurate;
- (xiv) agree to accept the Hong Kong Offer Shares applied for, or any lesser number allocated to you under the application;
- (xv) authorize the Company to place your name(s) or the name of the HKSCC Nominees, on the Company's register of members as the holder(s) of any Hong Kong Offer Shares allocated to you, and the Company and/or its agents to send any share certificate(s) and/or any e-Refund payment instructions and/or any refund cheque(s) to you or the first-named applicant for joint application by ordinary post at your own risk to the address stated on the application, unless you have fulfilled the criteria mentioned in the paragraph headed "Personal Collection" in this section to collect the share certificate(s) and/or refund cheque(s) in person;
- (xvi) declare and represent that this is the only application made and the only application intended by you to be made to benefit you or the person for whose benefit you are applying;
- (xvii) understand that the Company and the Joint Representatives will rely on your declarations and representations in deciding whether or not to make any allotment of any of the Hong Kong Offer Shares to you and that you may be prosecuted for making a false declaration;
- (xviii) (if the application is made for your own benefit) warrant that no other application has been or will be made for your benefit on a **WHITE** or **YELLOW** Application Form or by giving electronic application instructions to HKSCC or to the **White Form eIPO** Service Provider by you or by any one as your agent or by any other person;

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## HOW TO APPLY FOR HONG KONG OFFER SHARES

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(xix) (if you are making the application as an agent for the benefit of another person) warrant that:

- no other application has been or will be made by you as agent for or for the benefit of that person or by that person or by any other person as agent for that person on a **WHITE** or **YELLOW** Application Form or by giving electronic application instructions to HKSCC; and
- you have due authority to sign the Application Form or give electronic application instructions on behalf of that other person as their agent.

### Additional Instructions for the **YELLOW** Application Form

You may refer to the **YELLOW** Application Form for details.

## 5. APPLYING THROUGH WHITE FORM eIPO SERVICE

### General

Individuals who meet the criteria in “How to Apply for Hong Kong Offer Shares – 2. Who Can Apply” may apply through the **White Form eIPO** service for the Hong Kong Offer Shares to be allotted and registered in their own names through the designated website at [www.eipo.com.hk](http://www.eipo.com.hk).

Detailed instructions for application through the **White Form eIPO** service are on the designated website. If you do not follow the instructions, your application may be rejected and may not be submitted to the Company. If you apply through the designated website, you authorize the **White Form eIPO** Service Provider to apply on the terms and conditions in this Prospectus, as supplemented and amended by the terms and conditions of the **White Form eIPO** service.

### Time for Submitting Applications under the **White Form eIPO** Service

You may submit your application to the **White Form eIPO** Service Provider at [www.eipo.com.hk](http://www.eipo.com.hk) (24 hours daily, except on the last application day) from 9:00 a.m. on Monday, March 18, 2019 until 11:30 a.m. on Thursday, March 21, 2019 and the latest time for completing full payment of application monies in respect of such applications will be 12:00 noon on Thursday, March 21, 2019 or such later time under “How to Apply for Hong Kong Offer Shares – 10. Effect of Bad Weather on the Opening of the Application Lists.”

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## HOW TO APPLY FOR HONG KONG OFFER SHARES

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### No Multiple Applications

If you apply by means of **White Form eIPO** service, once you complete payment in respect of any electronic application instruction given by you or for your benefit through the **White Form eIPO** service to make an application for Hong Kong Offer Shares, an actual application shall be deemed to have been made. For the avoidance of doubt, giving an electronic application instruction under **White Form eIPO** service more than once and obtaining different application reference numbers without effecting full payment in respect of a particular reference number will not constitute an actual application.

If you are suspected of submitting more than one application through the **White Form eIPO** service or by any other means, all of your applications are liable to be rejected.

### Section 40 of the Companies (Winding Up and Miscellaneous Provisions) Ordinance

For the avoidance of doubt, the Company and all other parties involved in the preparation of this Prospectus acknowledge that each applicant who gives or causes to give electronic application instructions is a person who may be entitled to compensation under Section 40 of the Companies (Winding Up and Miscellaneous Provisions) Ordinance (as applied by Section 342E of the Companies (Winding Up and Miscellaneous Provisions) Ordinance).

### Environmental Protection

The obvious advantage of **White Form eIPO** is to save the use of papers via the self-serviced and electronic application process. Computershare Hong Kong Investor Services Limited, being the designated **White Form eIPO** Service Provider, will contribute HK\$2.0 for each “CanSino Biologics Inc.” **White Form eIPO** application submitted via the website [www.eipo.com.hk](http://www.eipo.com.hk) to support the funding of “Dongjiang River Source Tree Planting” project initiated by Friends of the Earth (HK).

## 6. APPLYING BY GIVING ELECTRONIC APPLICATION INSTRUCTIONS TO HKSCC VIA CCASS

### General

CCASS Participants may give electronic application instructions to apply for the Hong Kong Offer Shares and to arrange payment of the money due on application and payment of refunds under their participant agreements with HKSCC and the General Rules of CCASS and the CCASS Operational Procedures.

If you are a CCASS Investor Participant, you may give these electronic application instructions through the CCASS Phone System by calling +852 2979 7888 or through the CCASS Internet System (<https://ip.ccass.com>) (using the procedures in HKSCC’s “An Operating Guide for Investor Participants” in effect from time to time).

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## HOW TO APPLY FOR HONG KONG OFFER SHARES

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HKSCC can also input electronic application instructions for you if you go to:

**Hong Kong Securities Clearing Company Limited**

Customer Service

Center 1/F One & Two Exchange Square

8 Connaught Place Central

Hong Kong

and complete an input request form.

You can also collect a Prospectus from this address.

If you are not a CCASS Investor Participant, you may instruct your broker or custodian who is a CCASS Clearing Participant or a CCASS Custodian Participant to give electronic application instructions via CCASS terminals to apply for the Hong Kong Offer Shares on your behalf.

You will be deemed to have authorized HKSCC and/or HKSCC Nominees to transfer the details of your application to the Company, the Joint Representatives and the H Share Registrar.

### GIVING ELECTRONIC APPLICATION INSTRUCTIONS TO HKSCC VIA CCASS

Where you have given electronic application instructions to apply for the Hong Kong Offer Shares and a **WHITE** Application Form is signed by HKSCC Nominees on your behalf:

- (i) HKSCC Nominees will only be acting as a nominee for you and is not liable for any breach of the terms and conditions of the **WHITE** Application Form or this Prospectus;
- (ii) HKSCC Nominees will do the following things on your behalf;
- (iii) agree that the Hong Kong Offer Shares to be allotted shall be issued in the name of HKSCC Nominees and deposited directly into CCASS for the credit of the CCASS Participant's stock account on your behalf or your CCASS Investor Participant's stock account;
- (iv) agree to accept the Hong Kong Offer Shares applied for or any lesser number allocated;
- (v) undertake and confirm that you have not applied for or taken up, will not apply for or take up, have not indicated or will not indicate an interest for, any Offer Shares under the International Offering nor otherwise participate in the International Offering;
- (vi) (if the electronic application instruction are given for your benefit) declare that only one set of electronic application instructions has been given for your benefit;

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## HOW TO APPLY FOR HONG KONG OFFER SHARES

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- (vii) (if you are an agent for another person) declare that you have only given one set of electronic application instructions for the other person's benefit and are duly authorized to give those instructions as their agent;
- (viii) confirm that you understand that the Company and the Joint Representatives will rely on your declarations and representations in deciding whether or not to make any allotment of any of the Hong Kong Offer Shares to you and that you may be prosecuted if you make a false declaration;
- (ix) authorize the Company to place HKSCC Nominees' name on the Company's register of members as the holder of the Hong Kong Offer Shares allocated to you and to send share certificate(s) and/or refund monies under the arrangements separately agreed between us and HKSCC;
- (x) confirm that you have read the terms and conditions and application procedures set out in this Prospectus and agree to be bound by them;
- (xi) confirm that you have received and/or read a copy of this prospectus and have relied only on the information and representations in this Prospectus in causing the application to be made, save as set out in any supplement to this Prospectus;
- (xii) agree that none of the Company, the Joint Sponsors, the Joint Representatives, the Joint Global Coordinators, the Joint Bookrunners, the Joint Lead Managers, the Underwriters, their respective directors, officers, employees, partners, agents, advisers and any other parties involved in the Global Offering, is or will be liable for any information and representations not contained in this Prospectus (and any supplement to it);
- (xiii) agree to disclose your personal data to the Company, the H Share Registrar, receiving bank, the Joint Sponsors, the Joint Representatives, the Joint Global Coordinators, the Joint Bookrunners, the Joint Lead Managers, the Underwriters and/or its respective advisers and agents;
- (xiv) agree (without prejudice to any other rights which you may have) that once HKSCC Nominees' application has been accepted, it cannot be rescinded for innocent misrepresentation;
- (xv) agree that any application made by HKSCC Nominees on your behalf is irrevocable before the fifth day after the time of the opening of the application lists (excluding any day which is Saturday, Sunday or public holiday in Hong Kong), such agreement to take effect as a collateral contract with us and to become binding when you give the instructions and such collateral contract to be in consideration of the Company agreeing that it will not offer any Hong Kong Offer Shares to any person before the fifth day after the time of the opening of the application lists (excluding any day which is Saturday, Sunday or public holiday in Hong Kong), except by means of one of the procedures referred to in this Prospectus. However, HKSCC Nominees may revoke the application before the fifth day after the time of the opening of the application lists (excluding for this purpose any day which is a Saturday, Sunday or public holiday in Hong Kong) if a person responsible for this Prospectus under Section 40 of the Companies (Winding Up and Miscellaneous Provisions) Ordinance gives a public notice under that section which excludes or limits that person's responsibility for this Prospectus;

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## HOW TO APPLY FOR HONG KONG OFFER SHARES

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- (xvi) agree that once HKSCC Nominees' application is accepted, neither that application nor your electronic application instructions can be revoked, and that acceptance of that application will be evidenced by the Company's announcement of the Hong Kong Public Offering results;
- (xvii) agree to the arrangements, undertakings and warranties under the participant agreement between you and HKSCC, read with the General Rules of CCASS and the CCASS Operational Procedures, for the giving electronic application instructions to apply for Hong Kong Offer Shares;
- (xviii) agree with the Company, for itself and for the benefit of each Shareholder (and so that the Company will be deemed by its acceptance in whole or in part of the application by HKSCC Nominees to have agreed, for itself and on behalf of each of the Shareholders, with each CCASS Participant giving electronic application instructions) to observe and comply with the Companies (Winding Up and Miscellaneous Provisions) Ordinance and the Memorandum and Articles of Association;
- (xix) agree with the Company, for itself and for the benefit of each shareholder of the Company and each director, supervisor, manager and other senior officer of the Company (and so that the Company will be deemed by its acceptance in whole or in part of this application to have agreed, for itself and on behalf of each shareholder of the Company and each director, supervisor, manager and other senior officer of the Company, with each CCASS Participant giving electronic application instructions):
  - (a) to refer all differences and claims arising from the Articles of Association of the Company or any rights or obligations conferred or imposed by the Company Law or other relevant laws and administrative regulations concerning the affairs of the Company to arbitration in accordance with the Articles of Association of the Company;
  - (b) that any award made in such arbitration shall be final and conclusive; and
  - (c) that the arbitration tribunal may conduct hearings in open sessions and publish its award;
- (xx) agree with the Company (for the Company itself and for the benefit of each shareholder of the Company) that H shares in the Company are freely transferable by their holders;
- (xxi) authorise the Company to enter into a contract on its behalf with each director and officer of the Company whereby each such director and officer undertakes to observe and comply with his obligations to shareholders stipulated in the Articles of Association of the Company; and
- (xxii) agree that your application, any acceptance of it and the resulting contract will be governed by the laws of Hong Kong.



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## HOW TO APPLY FOR HONG KONG OFFER SHARES

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### EFFECT OF GIVING ELECTRONIC APPLICATION INSTRUCTIONS TO HKSCC VIA CCASS

By giving electronic application instructions to HKSCC or instructing your broker or custodian who is a CCASS Clearing Participant or a CCASS Custodian Participant to give such instructions to HKSCC, you (and, if you are joint applicants, each of you jointly and severally) are deemed to have done the following things. Neither HKSCC nor HKSCC Nominees shall be liable to the Company or any other person in respect of the things mentioned below:

- instructed and authorized HKSCC to cause HKSCC Nominees (acting as nominee for the relevant CCASS Participants) to apply for the Hong Kong Offer Shares on your behalf;
- instructed and authorized HKSCC to arrange payment of the maximum Offer Price, brokerage, SFC transaction levy and the Stock Exchange trading fee by debiting your designated bank account and, in the case of a wholly or partially unsuccessful application and/or if the Offer Price is less than the maximum Offer Price per Offer Share initially paid on application, refund of the application monies (including brokerage, SFC transaction levy and the Stock Exchange trading fee) by crediting your designated bank account; and
- instructed and authorized HKSCC to cause HKSCC Nominees to do on your behalf all the things stated in the **WHITE** Application Form and in this Prospectus.

### Minimum Purchase Amount and Permitted Numbers

You may give or cause your broker or custodian who is a CCASS Clearing Participant or a CCASS Custodian Participant to give electronic application instructions for a minimum of 200 Hong Kong Offer Shares. Instructions for more than 200 Hong Kong Offer Shares must be in one of the numbers set out in the table in the Application Forms. No application for any other number of Hong Kong Offer Shares will be considered and any such application is liable to be rejected.

### Time for Inputting Electronic Application Instructions<sup>(1)</sup>

CCASS Clearing/Custodian Participants can input electronic application instructions at the following times on the following dates:

- |                             |   |                         |
|-----------------------------|---|-------------------------|
| • Monday, March 18, 2019    | – | 9:00 a.m. to 8:30 p.m.  |
| • Tuesday, March 19, 2019   | – | 8:00 a.m. to 8:30 p.m.  |
| • Wednesday, March 20, 2019 | – | 8:00 a.m. to 8:30 p.m.  |
| • Thursday, March 21, 2019  | – | 8:00 a.m. to 12:00 noon |

*Note:*

- (1) These times are subject to change as HKSCC may determine from time to time with prior notification to CCASS Clearing/Custodian Participants and/or CCASS Investor Participants.



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## HOW TO APPLY FOR HONG KONG OFFER SHARES

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CCASS Investor Participants can input electronic application instructions from 9:00 a.m. on Monday, March 18, 2019 until 12:00 noon on Thursday, March 21, 2019 (24 hours daily, except on the last application day).

The latest time for inputting your electronic application instructions will be 12:00 noon on Thursday, March 21, 2019, the last application day or such later time as described in “How to Apply for Hong Kong Offer Shares – 10. Effect of Bad Weather on the Opening of the Application Lists” in this section.

### No Multiple Applications

If you are suspected of having made multiple applications or if more than one application is made for your benefit, the number of Hong Kong Offer Shares applied for by HKSCC Nominees will be automatically reduced by the number of Hong Kong Offer Shares for which you have given such instructions and/or for which such instructions have been given for your benefit. Any electronic application instructions to make an application for the Hong Kong Offer Shares given by you or for your benefit to HKSCC shall be deemed to be an actual application for the purposes of considering whether multiple applications have been made.

### Section 40 of the Companies (Winding Up and Miscellaneous Provisions) Ordinance

For the avoidance of doubt, the Company and all other parties involved in the preparation of this Prospectus acknowledge that each CCASS Participant who gives or causes to give electronic application instructions is a person who may be entitled to compensation under Section 40 of the Companies (Winding Up and Miscellaneous Provisions) Ordinance (as applied by Section 342E of the Companies (Winding Up and Miscellaneous Provisions) Ordinance).

### Personal Data

The section of the Application Form headed “Personal Data” applies to any personal data held by the Company, the H Share Registrar, the receiving bank, the Joint Representatives, the Underwriters and any of their respective advisers and agents about you in the same way as it applies to personal data about applicants other than HKSCC Nominees.

## 7. WARNING FOR ELECTRONIC APPLICATIONS

The subscription of the Hong Kong Offer Shares by giving electronic application instructions to HKSCC is only a facility provided to CCASS Participants. Similarly, the application for Hong Kong Offer Shares through the **White Form eIPO** service is also only a facility provided by the **White Form eIPO** Service Provider to public investors. Such facilities are subject to capacity limitations and potential service interruptions and you are advised not to wait until the last application day in making your electronic applications. The Company, the Directors, the Joint Bookrunners, the Joint Lead Managers, the Joint Sponsors, the Joint Representatives, the Joint Global Coordinators and the Underwriters take no responsibility for such applications and provide no assurance that any CCASS Participant or person applying through the **White Form eIPO** service will be allotted any Hong Kong Offer Shares.

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## HOW TO APPLY FOR HONG KONG OFFER SHARES

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To ensure that CCASS Investor Participants can give their electronic application instructions, they are advised not to wait until the last minute to input their instructions to the systems. In the event that CCASS Investor Participants have problems in the connection to CCASS Phone System/CCASS Internet System for submission of electronic application instructions, they should either (i) submit a **WHITE** or **YELLOW** Application Form, or (ii) go to HKSCC's Customer Service Centre to complete an input request form for electronic application instructions before 12:00 noon on Thursday, March 21, 2019.

### 8. HOW MANY APPLICATIONS CAN YOU MAKE

Multiple applications for the Hong Kong Offer Shares are not allowed except by nominees. If you are a nominee, in the box on the Application Form marked "For nominees" you must include:

- an account number; or
- some other identification code,

for each beneficial owner or, in the case of joint beneficial owners, for each joint beneficial owner. If you do not include this information, the application will be treated as being made for your benefit.

All of your applications will be rejected if more than one application on a **WHITE** or **YELLOW** Application Form or by giving electronic application instructions to HKSCC or through **White Form eIPO** service, is made for your benefit (including the part of the application made by HKSCC Nominees acting on electronic application instructions). If an application is made by an unlisted company and:

- the principal business of that company is dealing in securities; and
- you exercise statutory control over that company.

Then the application will be treated as being for your benefit.

"Unlisted company" means a company with no equity securities listed on the Stock Exchange.

"Statutory control" means you:

- control the composition of the board of directors of the company;
- control more than half of the voting power of the company; or
- hold more than half of the issued share capital of the company (not counting any part of it which carries no right to participate beyond a specified amount in a distribution of either profits or capital).

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## HOW TO APPLY FOR HONG KONG OFFER SHARES

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### 9. HOW MUCH ARE THE HONG KONG OFFER SHARES

The **WHITE** and **YELLOW** Application Forms have tables showing the exact amount payable for Shares.

You must pay the maximum Offer Price, brokerage, SFC transaction levy and the Stock Exchange trading fee in full upon application for Shares under the terms set out in the Application Forms.

You may submit an application using a **WHITE** or **YELLOW** Application Form or through the **White Form eIPO** service in respect of a minimum of 200 Hong Kong Offer Shares. Each application or electronic application instruction in respect of more than 200 Hong Kong Offer Shares must be in one of the numbers set out in the table in the Application Form, or as otherwise specified on the designated website at [www.eipo.com.hk](http://www.eipo.com.hk).

If your application is successful, brokerage will be paid to the Exchange Participants, and the SFC transaction levy and the Stock Exchange trading fee are paid to the Stock Exchange (in the case of the SFC transaction levy, collected by the Stock Exchange on behalf of the SFC).

For further details on the Offer Price, please see “Structure of the Global Offering – Pricing and Allocation.”

### 10. EFFECT OF BAD WEATHER ON THE OPENING OF THE APPLICATION LISTS

The application lists will not open if there is:

- a tropical cyclone warning signal number 8 or above; or
- a “black” rainstorm warning,

in force in Hong Kong at any time between 9:00 a.m. and 12:00 noon on Thursday, March 21, 2019. Instead they will open between 11:45 a.m. and 12:00 noon on the next business day which does not have either of those warnings in Hong Kong in force at any time between 9:00 a.m. and 12:00 noon.

If the application lists do not open and close on Thursday, March 21, 2019 or if there is a tropical cyclone warning signal number 8 or above or a “black” rainstorm warning signal in force in Hong Kong that may affect the dates mentioned in “Expected Timetable” an announcement will be made in such event.

### 11. PUBLICATION OF RESULTS

The Company expects to announce the final Offer Price, the level of indication of interest in the International Offering, the level of applications in the Hong Kong Public Offering and the basis of allocation of the Hong Kong Offer Shares on Wednesday, March 27, 2019 in South China Morning Post (in English) and Hong Kong Economic Times (in Chinese) and on the Company’s website at [www.cansinotech.com](http://www.cansinotech.com) and the website of the Stock Exchange at [www.hkexnews.hk](http://www.hkexnews.hk).

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## HOW TO APPLY FOR HONG KONG OFFER SHARES

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The results of allocations and the Hong Kong identity card/passport/Hong Kong business registration numbers of successful applicants under the Hong Kong Public Offering will be available at the times and date and in the manner specified below:

- in the announcement to be posted on the Company's website at [www.cansinotech.com](http://www.cansinotech.com) and the Stock Exchange's website at [www.hkexnews.hk](http://www.hkexnews.hk) by no later than 8:00 a.m. on Wednesday, March 27, 2019;
- from the designated results of allocations website at [www.iporesults.com.hk](http://www.iporesults.com.hk) (alternatively: English <https://www.eipo.com.hk/en/Allotment>; Chinese <https://www.eipo.com.hk/zh-hk/Allotment>) with a "search by ID" function on a 24-hour basis from 8:00 a.m. on Wednesday, March 27, 2019 to 12:00 midnight on Tuesday, April 2, 2019;
- by telephone enquiry line by calling +852 2862 8669 between 9:00 a.m. and 10:00 p.m. from Wednesday, March 27, 2019 to Saturday, March 30, 2019;
- in the special allocation results booklets which will be available for inspection during opening hours from Wednesday, March 27, 2019 to Friday, March 29, 2019 at all the receiving bank's designated branches.

If the Company accepts your offer to purchase (in whole or in part), which it may do by announcing the basis of allocations and/or making available the results of allocations publicly, there will be a binding contract under which you will be required to purchase the Hong Kong Offer Shares if the conditions of the Global Offering are satisfied and the Global Offering is not otherwise terminated. For further details, please see "Structure of the Global Offering."

You will not be entitled to exercise any remedy of rescission for innocent misrepresentation at any time after acceptance of your application. This does not affect any other right you may have.

### 12. CIRCUMSTANCES IN WHICH YOU WILL NOT BE ALLOTTED OFFER SHARES

You should note the following situations in which the Hong Kong Offer Shares will not be allotted to you:

#### (i) If your application is revoked:

By completing and submitting an Application Form or giving electronic application instructions to HKSCC or to **White Form eIPO** Service Provider, you agree that your application or the application made by HKSCC Nominees on your behalf cannot be revoked on or before the fifth day after the time of the opening of the application lists (excluding for this purpose any day which is Saturday, Sunday or public holiday in Hong Kong). This agreement will take effect as a collateral contract with the Company.

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## HOW TO APPLY FOR HONG KONG OFFER SHARES

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Your application or the application made by HKSCC Nominees on your behalf may only be revoked on or before such fifth day if a person responsible for this Prospectus under Section 40 of the Companies (Winding Up and Miscellaneous Provisions) Ordinance (as applied by Section 342E of the Companies (Winding Up and Miscellaneous Provisions) Ordinance) gives a public notice under that section which excludes or limits that person's responsibility for this Prospectus.

If any supplement to this Prospectus is issued, applicants who have already submitted an application will be notified that they are required to confirm their applications. If applicants have been so notified but have not confirmed their applications in accordance with the procedure to be notified, all unconfirmed applications will be deemed revoked.

If your application or the application made by HKSCC Nominees on your behalf has been accepted, it cannot be revoked. For this purpose, acceptance of applications which are not rejected will be constituted by notification in the press of the results of allocation, and where such basis of allocation is subject to certain conditions or provides for allocation by ballot, such acceptance will be subject to the satisfaction of such conditions or results of the ballot respectively.

**(ii) If the Company or its agents exercise their discretion to reject your application:**

The Company, the Joint Representatives, the **White Form eIPO Service** Provider and their respective agents and nominees have full discretion to reject or accept any application, or to accept only part of any application, without giving any reasons.

**(iii) If the allotment of Hong Kong Offer Shares is void:**

The allotment of Hong Kong Offer Shares will be void if the Listing Committee of the Stock Exchange does not grant permission to list the H Shares either:

- within three weeks from the closing date of the application lists; or
- within a longer period of up to six weeks if the Listing Committee notifies the Company of that longer period within three weeks of the closing date of the application lists.

**(iv) If:**

- you make multiple applications or suspected multiple applications;
- you or the person for whose benefit you are applying have applied for or taken up, or indicated an interest for, or have been or will be placed or allocated (including conditionally and/or provisionally) Hong Kong Offer Shares and International Offer Shares;
- your Application Form is not completed in accordance with the stated instructions;
- your electronic application instructions through the **White Form eIPO** service are not completed in accordance with the instructions, terms and conditions on the designated website;

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## HOW TO APPLY FOR HONG KONG OFFER SHARES

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- your payment is not made correctly or the cheque or banker's cashier order paid by you is dishonoured upon its first presentation;
- the Underwriting Agreements do not become unconditional or are terminated;
- the Company or the Joint Representatives believe that by accepting your application, it or they would violate applicable securities or other laws, rules or regulations; or
- your application is for more than 2,862,600 of the Hong Kong Offer Shares initially offered under the Hong Kong Public Offering.

### 13. REFUND OF APPLICATION MONIES

If an application is rejected, not accepted or accepted in part only, or if the Offer Price as finally determined is less than the maximum Offer Price of HK\$22.00 per Offer Share (excluding brokerage, SFC transaction levy and the Stock Exchange trading fee thereon), or if the conditions of the Global Offering are not fulfilled in accordance with "Structure of the Global Offering – Conditions of the Global Offering" in this Prospectus or if any application is revoked, the application monies, or the appropriate portion thereof, together with the related brokerage, SFC transaction levy and the Stock Exchange trading fee, will be refunded, without interest or the cheque or banker's cashier order will not be cleared.

Any refund of your application monies will be made on or before Wednesday, March 27, 2019.

### 14. DISPATCH/COLLECTION OF SHARE CERTIFICATES AND REFUND MONIES

You will receive one share certificate for all Hong Kong Offer Shares allotted to you under the Hong Kong Public Offering (except pursuant to applications made on **YELLOW** Application Forms or by electronic application instructions to HKSCC via CCASS where the share certificates will be deposited into CCASS as described below).

No temporary document of title will be issued in respect of the H Shares. No receipt will be issued for sums paid on application. If you apply by **WHITE** or **YELLOW** Application Form, subject to personal collection as mentioned below, the following will be sent to you (or, in the case of joint applicants, to the first-named applicant) by ordinary post, at your own risk, to the address specified on the Application Form:

- share certificate(s) for all the Hong Kong Offer Shares allotted to you (for **YELLOW** Application Forms, share certificates will be deposited into CCASS as described below); and
- refund cheque(s) crossed "Account Payee Only" in favor of the applicant (or, in the case of joint applicants, the first-named applicant) for (i) all or the surplus application monies for the Hong Kong Offer Shares, wholly or partially

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## HOW TO APPLY FOR HONG KONG OFFER SHARES

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unsuccessfully applied for; and/or (ii) the difference between the Offer Price and the maximum Offer Price per Offer Share paid on application in the event that the Offer Price is less than the maximum Offer Price (including brokerage, SFC transaction levy and the Stock Exchange trading fee but without interest). Part of the Hong Kong identity card number/passport number, provided by you or the first-named applicant (if you are joint applicants), may be printed on your refund cheque, if any. Your banker may require verification of your Hong Kong identity card number/passport number before encashment of your refund cheque(s). Inaccurate completion of your Hong Kong identity card number/passport number may invalidate or delay encashment of your refund cheque(s).

Subject to arrangement on dispatch/collection of share certificates and refund monies as mentioned below, any refund cheques and share certificates are expected to be posted on or before Wednesday, March 27, 2019. The right is reserved to retain any share certificate(s) and any surplus application monies pending clearance of cheque(s) or banker's cashier order(s).

Share certificates will only become valid at 8:00 a.m. on Thursday, March 28, 2019 provided that the Global Offering has become unconditional and the right of termination described in "Underwriting" has not been exercised. Investors who trade H Shares prior to the receipt of share certificates or the share certificates becoming valid do so at their own risk.

### **Personal Collection**

#### ***(i) If you apply using a WHITE Application Form***

If you apply for 1,000,000 or more Hong Kong Offer Shares and have provided all information required by your Application Form, you may collect your refund cheque(s) and/or share certificate(s) from the H Share Registrar, Computershare Hong Kong Investor Services Limited at Shops 1712-1716, 17th Floor, Hopewell Centre, 183 Queen's Road East, Wan Chai, Hong Kong from 9:00 a.m. to 1:00 p.m. on Wednesday, March 27, 2019 or such other date as notified by us in the newspapers.

If you are an individual who is eligible for personal collection, you must not authorize any other person to collect for you. If you are a corporate applicant which is eligible for personal collection, your authorized representative must bear a letter of authorization from your corporation stamped with your corporation's chop. Both individuals and authorized representatives must produce, at the time of collection, evidence of identity acceptable to the H Share Registrar.

If you do not collect your refund cheque(s) and/or share certificate(s) personally within the time specified for collection, they will be dispatched promptly to the address specified in your Application Form by ordinary post at your own risk.

If you apply for less than 1,000,000 Hong Kong Offer Shares, your refund cheque(s) and/or share certificate(s) will be sent to the address on the relevant Application Form on or before Wednesday, March 27, 2019, by ordinary post and at your own risk.



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## HOW TO APPLY FOR HONG KONG OFFER SHARES

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### *(ii) If you apply using a YELLOW Application Form*

If you apply for 1,000,000 Hong Kong Offer Shares or more, please follow the same instructions as described above. If you have applied for less than 1,000,000 Hong Kong Offer Shares, your refund cheque(s) will be sent to the address on the relevant Application Form on or before Wednesday, March 27, 2019, by ordinary post and at your own risk.

If you apply by using a **YELLOW** Application Form and your application is wholly or partially successful, your share certificate(s) will be issued in the name of HKSCC Nominees and deposited into CCASS for credit to your or the designated CCASS Participant's stock account as stated in your Application Form on Wednesday, March 27, 2019, or upon contingency, on any other date determined by HKSCC or HKSCC Nominees.

- *If you apply through a designated CCASS Participant (other than a CCASS investor participant)*

For Hong Kong Offer Shares credited to your designated CCASS Participant's stock account (other than CCASS Investor Participant), you can check the number of Hong Kong Offer Shares allotted to you with that CCASS Participant.

- *If you are applying as a CCASS Investor Participant*

The Company will publish the results of CCASS Investor Participants' applications together with the results of the Hong Kong Public Offering in the manner described in "How to Apply for Hong Kong Offer Shares – 11. Publication of Results." You should check the announcement published by the Company and report any discrepancies to HKSCC before 5:00 p.m. on Wednesday, March 27, 2019 or any other date as determined by HKSCC or HKSCC Nominees. Immediately after the credit of the Hong Kong Offer Shares to your stock account, you can check your new account balance via the CCASS Phone System and CCASS Internet System.

### *(iii) If you apply through the White Form eIPO service*

If you apply for 1,000,000 Hong Kong Offer Shares or more and your application is wholly or partially successful, you may collect your share certificate(s) from the H Share Registrar, Computershare Hong Kong Investor Services Limited at Shops 1712-1716, 17th Floor, Hopewell Centre, 183 Queen's Road East, Wan Chai, Hong Kong, from 9:00 a.m. to 1:00 p.m. on Wednesday, March 27, 2019, or such other date as notified by the Company in the newspapers as the date of dispatch/collection of share certificates/e-Refund payment instructions/refund cheques.

If you do not collect your Share certificate(s) personally within the time specified for collection, they will be sent to the address specified in your application instructions by ordinary post at your own risk.

If you apply for less than 1,000,000 Hong Kong Offer Shares, your share certificate(s) (where applicable) will be sent to the address specified in your application instructions on or before Wednesday, March 27, 2019 by ordinary post at your own risk.



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## HOW TO APPLY FOR HONG KONG OFFER SHARES

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If you apply and pay the application monies from a single bank account, any refund monies will be dispatched to that bank account in the form of e-Refund payment instructions. If you apply and pay the application monies from multiple bank accounts, any refund monies will be dispatched to the address as specified in your application instructions in the form of refund cheque(s) by ordinary post at your own risk.

*(iv) If you apply via electronic application instructions to HKSCC*

*Allocation of Hong Kong Offer Shares*

For the purposes of allocating Hong Kong Offer Shares, HKSCC Nominees will not be treated as an applicant. Instead, each CCASS Participant who gives electronic application instructions or each person for whose benefit instructions are given will be treated as an applicant.

*Deposit of Share Certificates into CCASS and Refund of Application Monies*

- If your application is wholly or partially successful, your share certificate(s) will be issued in the name of HKSCC Nominees and deposited into CCASS for the credit of your designated CCASS Participant's stock account or your CCASS Investor Participant stock account on Wednesday, March 27, 2019, or, on any other date determined by HKSCC or HKSCC Nominees.
- The Company expects to publish the application results of CCASS Participants (and where the CCASS Participant is a broker or custodian, the Company will include information relating to the relevant beneficial owner), your Hong Kong identity card number/passport number or other identification code (Hong Kong business registration number for corporations) and the basis of allotment of the Hong Kong Public Offering in the manner specified in "How to Apply for Hong Kong Offer Shares – 11. Publication of Results" on Wednesday, March 27, 2019. You should check the announcement published by the Company and report any discrepancies to HKSCC before 5:00 p.m. on Wednesday, March 27, 2019 or such other date as determined by HKSCC or HKSCC Nominees.
- If you have instructed your broker or custodian to give electronic application instructions on your behalf, you can also check the number of Hong Kong Offer Shares allotted to you and the amount of refund monies (if any) payable to you with that broker or custodian.
- If you have applied as a CCASS Investor Participant, you can also check the number of Hong Kong Offer Shares allotted to you and the amount of refund monies (if any) payable to you via the CCASS Phone System and the CCASS Internet System (under the procedures contained in HKSCC's "An Operating Guide for Investor Participants" in effect from time to time) on Wednesday, March 27, 2019. Immediately following the credit of the Hong Kong Offer Shares to your stock

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## HOW TO APPLY FOR HONG KONG OFFER SHARES

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account and the credit of refund monies to your bank account, HKSCC will also make available to you an activity statement showing the number of Hong Kong Offer Shares credited to your CCASS Investor Participant stock account and the amount of refund monies (if any) credited to your designated bank account.

- Refund of your application monies (if any) in respect of wholly and partially unsuccessful applications and/or difference between the Offer Price and the maximum Offer Price per Offer Share initially paid on application (including brokerage, SFC transaction levy and the Stock Exchange trading fee but without interest) will be credited to your designated bank account or the designated bank account of your broker or custodian on Wednesday, March 27, 2019.

### 15. ADMISSION OF THE SHARES INTO CCASS

If the Stock Exchange grants the listing of, and permission to deal in, the H Shares and we comply with the stock admission requirements of HKSCC, the H Shares will be accepted as eligible securities by HKSCC for deposit, clearance and settlement in CCASS with effect from the date of commencement of dealings in the H Shares or any other date HKSCC chooses. Settlement of transactions between Exchange Participants (as defined in the Listing Rules) is required to take place in CCASS on the second business day after any trading day.

All activities under CCASS are subject to the General Rules of CCASS and CCASS Operational Procedures in effect from time to time.

Investors should seek the advice of their stockbroker or other professional adviser for details of the settlement arrangement as such arrangements may affect their rights and interests.

All necessary arrangements have been made enabling the H Shares to be admitted into CCASS.

*The following is the text of a report set out on pages I-1 to I-3, received from the Company's reporting accountant, PricewaterhouseCoopers, Certified Public Accountants, Hong Kong, for the purpose of incorporation in this prospectus. It is prepared and addressed to the directors of the Company and to the Joint Sponsors pursuant to the requirements of Hong Kong Standard on Investment Circular Reporting Engagement 200, Accountants' Reports on Historical Financial Information in Investment Circulars issued by the Hong Kong Institute of Certified Public Accountants.*



羅兵咸永道

## **ACCOUNTANT'S REPORT ON HISTORICAL FINANCIAL INFORMATION TO THE DIRECTORS OF CANSINO BIOLOGICS INC. AND MORGAN STANLEY ASIA LIMITED AND CLSA CAPITAL MARKETS LIMITED**

### **Introduction**

We report on the historical financial information of CanSino Biologics Inc. (the "Company") and its subsidiaries (together, the "Group") set out on pages I-4 to I-52, which comprises the consolidated balance sheets as at 31 December 2016, 2017 and 2018, the company balance sheets as at 31 December 2016, 2017 and 2018, and the consolidated statements of comprehensive income, the consolidated statements of changes in equity and the consolidated statements of cash flows for each of the periods then ended (the "Track Record Period") and a summary of significant accounting policies and other explanatory information (together, the "Historical Financial Information"). The Historical Financial Information sets out on pages I-4 to I-52 forms an integral part of this report, which has been prepared for inclusion in the prospectus of the Company dated 18 March 2019 (the "Prospectus") in connection with the initial listing of shares of the Company on the Main Board of The Stock Exchange of Hong Kong Limited.

### **Directors' responsibility for the Historical Financial Information**

The directors of the Company are responsible for the preparation of Historical Financial Information that gives a true and fair view in accordance with the basis of preparation set out in Note 2.1 to the Historical Financial Information, and for such internal control as the directors determine is necessary to enable the preparation of Historical Financial Information that is free from material misstatement, whether due to fraud or error.

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T: +852 2289 8888, F: +852 2810 9888, [www.pwchk.com](http://www.pwchk.com)*

**Reporting accountant's responsibility**

Our responsibility is to express an opinion on the Historical Financial Information and to report our opinion to you. We conducted our work in accordance with Hong Kong Standard on Investment Circular Reporting Engagements 200, *Accountants' Reports on Historical Financial Information in Investment Circulars* issued by the Hong Kong Institute of Certified Public Accountants ("HKICPA"). This standard requires that we comply with ethical standards and plan and perform our work to obtain reasonable assurance about whether the Historical Financial Information is free from material misstatement.

Our work involved performing procedures to obtain evidence about the amounts and disclosures in the Historical Financial Information. The procedures selected depend on the reporting accountant's judgement, including the assessment of risks of material misstatement of the Historical Financial Information, whether due to fraud or error. In making those risk assessments, the reporting accountant considers internal control relevant to the entity's preparation of Historical Financial Information that gives a true and fair view in accordance with the basis of preparation set out in Note 2.1 to the Historical Financial Information in order to design procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Our work also included evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by the directors, as well as evaluating the overall presentation of the Historical Financial Information.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

**Opinion**

In our opinion, the Historical Financial Information gives, for the purposes of the accountant's report, a true and fair view of the financial position of the Company as at 31 December 2016, 2017 and 2018 and the consolidated financial position of the Group as at 31 December 2016, 2017 and 2018 and of its consolidated financial performance and its consolidated cash flows for the Track Record Period in accordance with the basis of preparation set out in Note 2.1 to the Historical Financial Information.

**Report on matters under the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited (the “Listing Rules”) and the Companies (Winding Up and Miscellaneous Provisions) Ordinance**

**Adjustments**

In preparing the Historical Financial Information, no adjustments to the Underlying Financial Statements as defined on page I-4 have been made.

**Dividends**

We refer to note 37 to the Historical Financial Information which states that no dividends have been paid by CanSino Biologics Inc. in respect of the Track Record Period.

**PricewaterhouseCoopers**

Certified Public Accountants

Hong Kong, 18 March 2019

**I. HISTORICAL FINANCIAL INFORMATION OF THE GROUP**

Set out below is the Historical Financial Information which forms an integral part of this accountant's report. The financial statement of the Group for the Track Record Period, on which the Historical Financial Information is based, were audited by PricewaterhouseCoopers in accordance with Hong Kong Standards on Auditing issued by the HKICPA ("Underlying Financial Statements").

The Historical Financial Information is presented in Renminbi ("RMB") and all amounts are rounded to the nearest thousand yuan (RMB'000), unless otherwise stated.

**CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME**

	<i>Notes</i>	<b>Year ended 31 December</b>		
		<b>2016</b>	<b>2017</b>	<b>2018</b>
		<i>RMB'000</i>	<i>RMB'000</i>	<i>RMB'000</i>
Revenue	6	–	–	1,132
Other income	7	9,873	20,992	19,962
Research and development expenses	8	(51,667)	(68,100)	(113,646)
Administrative expenses	8	(10,892)	(16,686)	(46,231)
Other (losses)/gains – net	10	–	(2)	205
<b>Operating loss</b>		<b>(52,686)</b>	<b>(63,796)</b>	<b>(138,578)</b>
Finance income	11	2,835	228	297
Finance costs	11	–	(882)	–
Finance income/(costs) – net	11	2,835	(654)	297
<b>Loss before income tax</b>		<b>(49,851)</b>	<b>(64,450)</b>	<b>(138,281)</b>
Income tax expense	12	–	–	–
<b>Loss for the year and total comprehensive loss</b>		<b>(49,851)</b>	<b>(64,450)</b>	<b>(138,281)</b>
Loss attributable to owners of the Company		(49,851)	(64,450)	(138,281)
<b>Loss per share</b>				
– Basic and diluted loss per share (in RMB)	13	(0.41)	(0.45)	(0.90)

## CONSOLIDATED BALANCE SHEETS

		As at 31 December		
	Notes	2016	2017	2018
		RMB'000	RMB'000	RMB'000
ASSETS				
Non-current assets				
Property, plant and equipment	14	158,179	396,894	507,449
Land use rights	15	19,756	19,346	18,936
Intangible assets	16	–	21,418	32,320
Other receivables and prepayments	18	1,433	1,788	16,166
Total non-current assets		179,368	439,446	574,871
Current assets				
Inventories	17	–	1,624	8,494
Other receivables and prepayments	18	257	2,671	15,129
Financial assets at fair value through profit or loss	19	–	132,636	–
Financial assets at amortised cost	20	94,000	270,000	140,000
Restricted cash	21	–	1,740	–
Cash and cash equivalents	21	52,548	18,247	57,381
Total current assets		146,805	426,918	221,004
Total assets		326,173	866,364	795,875
EQUITY				
Equity attributable to owners of the Company				
Share capital and share premium	22	–	672,000	689,486
Paid-in capital	23	129,878	–	–
Other reserves	23	214,155	(5,495)	(1,041)
Shares held for share award schemes	24	(3,475)	(3,475)	(7,929)
Share-based compensation reserves	24	10,000	17,309	33,089
Accumulated losses		(136,085)	(73,007)	(211,288)
Total equity		214,473	607,332	502,317
LIABILITIES				
Non-current liabilities				
Borrowings	27	69,329	108,333	150,000
Deferred income	28	15,015	37,772	36,873
Total non-current liabilities		84,344	146,105	186,873
Current liabilities				
Trade payables	29	734	1,879	6,651
Other payables and accruals	30	24,156	109,296	98,509
Deferred income	28	2,466	1,752	1,525
Total current liabilities		27,356	112,927	106,685
Total liabilities		111,700	259,032	293,558
Total equity and liabilities		326,173	866,364	795,875

## COMPANY'S BALANCE SHEETS

		As at 31 December		
	Notes	2016	2017	2018
		RMB'000	RMB'000	RMB'000
ASSETS				
Non-current assets				
Property, plant and equipment	14	158,179	396,894	507,449
Land use rights	15	19,756	19,346	18,936
Intangible assets	16	–	21,418	32,320
Other receivables and prepayments	18	1,433	1,788	16,166
Total non-current assets		179,368	439,446	574,871
Current assets				
Inventories	17	–	1,624	8,494
Other receivables and prepayments	18	257	2,671	15,129
Financial assets at fair value through profit or loss	19	–	132,636	–
Financial assets at amortised cost	20	94,000	270,000	140,000
Restricted cash	21	–	1,740	–
Cash and cash equivalents		52,543	18,242	57,374
Total current assets		146,800	426,913	220,997
Total assets		326,168	866,359	795,868
EQUITY				
Equity attributable to owners of the Company				
Share capital and share premium	22	–	672,000	689,486
Paid-in capital	23	129,878	–	–
Other reserves		210,680	(8,970)	(8,970)
Share-based compensation reserves	24	10,000	17,309	33,089
Accumulated losses		(136,080)	(73,002)	(211,272)
Total equity		214,478	607,337	502,333
LIABILITIES				
Non-current liabilities				
Borrowings	27	69,329	108,333	150,000
Deferred income	28	15,015	37,772	36,873
Total non-current liabilities		84,344	146,105	186,873
Current liabilities				
Trade payables	29	734	1,879	6,651
Other payables and accruals		24,146	109,286	98,486
Deferred income	28	2,466	1,752	1,525
Total current liabilities		27,346	112,917	106,662
Total liabilities		111,690	259,022	293,535
Total equity and liabilities		326,168	866,359	795,868



## CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

	Note	Paid-in capital	Other reserves	Share capital	Share premium	Shares held for share award schemes	Share-based compensation reserves	Accumulated losses	Total equity
		RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
Balance at 1 January 2016		120,241	141,970	–	–	(3,475)	–	(86,234)	172,502
Comprehensive income									
– Loss for the year		–	–	–	–	–	–	(49,851)	(49,851)
Transaction with owners									
– Contributions from shareholders	23	9,637	72,185	–	–	–	–	–	81,822
– Share-based payments	24(b)	–	–	–	–	–	10,000	–	10,000
Balance at 31 December 2016		129,878	214,155	–	–	(3,475)	10,000	(136,085)	214,473
Balance at 1 January 2017		129,878	214,155	–	–	(3,475)	10,000	(136,085)	214,473
Comprehensive income									
– Loss for the year		–	–	–	–	–	–	(64,450)	(64,450)
Transaction with owners									
– Conversion into a joint stock company	22	(129,878)	(219,650)	129,878	92,122	–	–	127,528	–
– Issuance of shares	22	–	–	26,566	423,434	–	–	–	450,000
– Share-based payments	24(b)	–	–	–	–	–	7,309	–	7,309
Balance at 31 December 2017		–	(5,495)	156,444	515,556	(3,475)	17,309	(73,007)	607,332
Balance at 1 January 2018		–	(5,495)	156,444	515,556	(3,475)	17,309	(73,007)	607,332
Comprehensive income									
– Loss for the year		–	–	–	–	–	–	(138,281)	(138,281)
Transaction with owners									
– Issuance of shares	22	–	–	4,507	12,979	–	–	–	17,486
– Consolidation of special purpose vehicles	24(a)	–	4,454	–	–	(4,454)	–	–	–
– Share-based payments	24(b)	–	–	–	–	–	15,780	–	15,780
Balance at 31 December 2018		–	(1,041)	160,951	528,535	(7,929)	33,089	(211,288)	502,317

## CONSOLIDATED STATEMENTS OF CASH FLOWS

	Note	Year ended 31 December		
		2016	2017	2018
		RMB'000	RMB'000	RMB'000
<b>Cash flows from operating activities</b>				
Cash used in operations	31	(34,533)	(56,529)	(123,843)
Interests received		150	228	205
Net cash used in operating activities		(34,383)	(56,301)	(123,638)
<b>Cash flows from investing activities</b>				
Purchase of property, plant and equipment		(126,080)	(164,469)	(149,423)
Purchase of wealth management products		(251,000)	(2,081,650)	(1,448,200)
Proceeds from disposal of wealth management products		187,000	1,773,650	1,710,200
Proceeds from disposal of property, plant and equipment		—	—	230
Purchase of intangible assets		—	(21,423)	(11,251)
Receipt of asset related government grants		14,870	23,655	—
Receipt of investment income on wealth management products		1,667	10,487	14,329
Proceeds from restricted cash		—	—	4,074
Payments for restricted cash		—	(1,740)	(2,334)
Net cash (used in)/generated from investing activities		(173,543)	(461,490)	117,625
<b>Cash flows from financing activities</b>				
Interest paid		(336)	(4,632)	(7,593)
Capital contribution from shareholders		81,822	—	—
Proceeds from share issued		—	450,000	17,486
Proceeds from borrowings		69,329	39,004	41,667
Prepayments of listing expenses		—	—	(6,505)
Net cash generated from financing activities		150,815	484,372	45,055
<b>Net (decrease)/increase in cash and cash equivalents</b>		(57,111)	(33,419)	39,042
Cash and cash equivalents at the beginning of the year		106,974	52,548	18,247
Exchange gains/(losses) on cash and cash equivalents		2,685	(882)	92
<b>Cash and cash equivalents at the end of the year</b>	21	52,548	18,247	57,381

## II. NOTES TO THE HISTORICAL FINANCIAL INFORMATION

### 1. GENERAL INFORMATION

The Company was incorporated in Tianjin of the People's Republic of China (the "PRC") on 13 January 2009 as a limited liability company by Xuefeng Yu, Tao Zhu, Dongxu Qiu, Xuan Liu and Helen Huihua Mao. The address of the Company's registered office is 401-420, 4th Floor, Biomedical Park, 185 South Avenue, TEDA West District, Tianjin, the PRC. Upon approval by the shareholders' general meeting held on 10 February 2017, the Company was converted into a joint stock company with limited liability under the Company Law of the PRC and changed its registered name from "Tianjin CanSino Biotechnology Inc. (天津康希諾生物技術有限公司)" to "CanSino Biologics Inc. (康希諾生物股份公司)" on 13 February 2017. The Company and its subsidiaries (collectively referred to as the "Group"), are principally engaged in the research and development, manufacturing and commercialisation of vaccine products for human use.

Tianjin Qianyi Enterprise Management Partnership (Limited Partnership) (天津千益企業管理合夥企業(有限合夥)) ("Tianjin Qianyi") was incorporated in Tianjin of the PRC under the Law of the People's Republic of China on Partnerships on 31 July 2015 as a vehicle to hold the ordinary shares for the Company's employees under the equity-settled share-based compensation plan of 2015 (the "2015 Employee Share Plan").

Tianjin Qianrui Enterprise Management Partnership (Limited Partnership) (天津千睿企業管理合夥企業(有限合夥)) ("Tianjin Qianrui") and Tianjin Qianzhi Enterprise Management Partnership (Limited Partnership) (天津千智企業管理合夥企業(有限合夥)) ("Tianjin Qianzhi") were incorporated in Tianjin of the PRC under the Law of the People's Republic of China on Partnerships on 28 May 2018 as vehicles to hold the ordinary shares for the Company's employees under the equity-settled share-based compensation plan of 2018 (the "2018 Employee Share Plan"). Detailed information of the 2015 Employee Share Plan and 2018 Employee Share Plan (together referred to as the "Employee Share Plans") are disclosed in Note 24.

As the Company has power to govern the relevant activities of Tianjin Qianyi, Tianjin Qianrui and Tianjin Qianzhi and can derive benefits from the contributions of the eligible employees who are awarded with the shares under the Employee Share Plans, the directors of the Company consider that it is appropriate to consolidate Tianjin Qianyi, Tianjin Qianrui and Tianjin Qianzhi. No statutory financial statements had been prepared by these vehicles in 2016, 2017 and 2018.

### 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The principal accounting policies applied in the preparation of the Historical Financial Information are set out below. These policies have been consistently applied to all the years presented, unless otherwise stated.

#### 2.1 Basis of preparation

The Historical Financial Information of the Group has been prepared in accordance with Hong Kong Financial Reporting Standards ("HKFRSs") issued by the HKICPA. The Group has consistently adopted HKFRS 9 "Financial Instruments" and HKFRS 15 "Revenue from contracts with customers" throughout the Track Record Period. The Historical Financial Information has been prepared under the historical cost convention, as modified by the revaluation of financial assets at fair value through profit or loss.

The preparation of the Historical Financial Information in conformity with HKFRSs requires the use of certain critical accounting estimates. It also requires management to exercise its judgement in the process of applying the Group's accounting policies. The areas involving a higher degree of judgement or complexity, or areas where assumptions and estimates are significant to the Historical Financial Information are disclosed in Note 4.

#### 2.2 Subsidiaries

A subsidiary is an entity (including structured entities) over which the Group has control. The Group controls an entity when the Group is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power to direct the activities of the entity. Subsidiaries are fully consolidated from the date on which control is transferred to the Group. They are deconsolidated from the date that control ceases.

Intercompany transactions, balances and unrealised gains on transactions between group companies are eliminated. Unrealised losses are also eliminated unless the transaction provides evidence of an impairment of the transferred asset. Accounting policies of subsidiaries have been changed where necessary to ensure consistency with the policies adopted by the Group.

### 2.3 Segment reporting

Operating segments are reported in a manner consistent with the internal reporting provided to the chief operating decision-maker ("CODM"). The CODM, who is responsible for allocating resources, assessing performance of the operating segments, and has been identified as the executive directors of the Group that make strategic decisions.

### 2.4 Foreign currency translation

#### (a) *Functional and presentation currency*

Items included in the financial statements of each of the Group's entities are measured using the currency of the primary economic environment in which the entity operates ("the functional currency"). The consolidated financial statements are presented in RMB, which is the Company's functional and presentation currency.

#### (b) *Transactions and balances*

Foreign currency transactions are translated into the functional currency using the exchange rates at the dates of the transactions. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation of monetary assets and liabilities denominated in foreign currencies at year end exchange rates are generally recognised in profit or loss.

Foreign exchange gains and losses are presented in the statement of comprehensive income within finance income or finance costs.

### 2.5 Property, plant and equipment

Property, plant and equipment are stated at historical cost less depreciation. Historical cost includes expenditure that is directly attributable to the acquisition of the items.

Subsequent costs are included in the asset's carrying amount or recognised as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow to the Group and the cost of the item can be measured reliably. The carrying amount of any component accounted for as a separate asset is derecognised when replaced. All other repairs and maintenance are charged to profit or loss during the reporting period in which they are incurred.

Depreciation is calculated using the straight-line method to allocate their cost, net of their residual values, over their estimated useful lives or, in the case of leasehold improvements and certain leased plant and equipment, the shorter lease term as follows:

– Buildings	20 years
– Leasehold improvements	2-10 years
– Equipment and instruments	5-10 years
– Motor vehicles	4 years
– Office equipment and furniture	5 years

The assets' residual values and useful lives are reviewed, and adjusted if appropriate, at the end of each reporting period.

An asset's carrying amount is written down immediately to its recoverable amount if the asset's carrying amount is greater than its estimated recoverable amount.

Gains and losses on disposals are determined by comparing the proceeds with the carrying amount and are recognised within "Other (losses)/gains – net" in the statement of comprehensive income.

### 2.6 Land use rights

Land use rights are up-front payments to acquire long-term interest in land. These payments are stated at cost and charged to the statement of comprehensive income on a straight-line basis over the remaining period of the lease. The estimated useful life of land use rights is 50 years.

**2.7 Intangible assets****(a) Computer software**

Acquired computer software licenses are capitalised on the basis of the costs incurred to acquire and bring the specific software into usage. These costs are amortised using the straight-line method over their estimated useful lives of 2 years. Costs associated with maintaining computer software programs are recognised as expense as incurred.

**(b) Non-proprietary technologies**

Non-proprietary technologies are initially recorded at cost and are amortised on a straight-line basis over their useful lives of 5 years.

**(c) Research and development**

The Group incurs significant costs and efforts on research and development activities, which include expenditures on vaccine products. Research expenditures are charged to the profit or loss as an expense in the period the expenditure is incurred. Development costs are recognised as assets if they can be directly attributable to a newly developed vaccine product and all the following can be demonstrated:

- (i) The technical feasibility to complete the development project so that it will be available for use or sale;
- (ii) The intention to complete the development project to use or sell the vaccine product;
- (iii) The ability to use or sell the vaccine product;
- (iv) The manner in which the development project will generate probable future economic benefits for the Group;
- (v) The availability of adequate technical, financial and other resources to complete the development project and use or sell the vaccine product; and
- (vi) The expenditure attributable to the asset during its development can be reliably measured.

The cost of an internally generated intangible asset is the sum of the expenditure incurred from the date the asset meets the recognition criteria above to the date when it is available for use. The costs capitalised in connection with the intangible asset include costs of materials and services used or consumed, employee costs incurred in the creation of the asset and an appropriate portion of relevant overheads.

Capitalised development costs are amortised using the straight-line method over the life of the related vaccine product. Amortisation shall begin when the asset is available for use.

Development expenditures not satisfying the above criteria are recognised in the profit or loss as incurred.

**2.8 Impairment of non-financial assets**

Intangible assets not ready to use are not subject to amortisation and are tested annually for impairment, or more frequently if events or changes in circumstances indicate that they might be impaired. Other assets are tested for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognised for the amount by which the asset's carrying amount exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs of disposal and value in use. For the purposes of assessing impairment, assets are grouped at the lowest levels for which there are separately identifiable cash inflows which are largely independent of the cash inflows from other assets or groups of assets (cash-generating units). Non-financial assets other than goodwill that suffered an impairment are reviewed for possible reversal of the impairment at the end of each reporting period.

**2.9 Financial assets and financial liabilities****(a) Initial recognition**

Financial assets and financial liabilities are recognised when the entity becomes a party to the contractual provisions of the instrument. Regular way purchases and sales of financial assets are recognised on trade-date, the date on which the Group commits to purchase or sell the asset.

At initial recognition, the Group measures a financial asset or financial liability at its fair value plus or minus, in the case of a financial asset or financial liability not at fair value through profit or loss, transaction costs that are incremental and directly attributable to the acquisition or issue of the financial asset or financial liability, such as fees and commissions. Transaction costs of financial assets and financial liabilities carried at fair value through profit or loss are expensed in profit or loss. Immediately after initial recognition, an expected credit loss allowance (ECL) is recognised for financial assets measured at amortised cost and investments in debt instruments measured at fair value through other comprehensive income, which results in an accounting loss being recognised in profit or loss.

When the fair value of financial assets and liabilities differs from the transaction price on initial recognition, the entity recognises the difference as follows:

- (i) When the fair value is evidenced by a quoted price in an active market for an identical asset or liability (i.e. a Level 1 input) or based on a valuation technique that uses only data from observable markets, the difference is recognised as a gain or loss.
- (ii) In all other cases, the difference is deferred and the timing of recognition of deferred day one profit or loss is determined individually. It is either amortised over the life of the instrument, deferred until the instrument's fair value can be determined using market observable inputs, or realised through settlement.

**(b) Classification and subsequent measurement***Financial assets*

The Group classifies its financial assets in the following measurement categories:

- (i) amortised cost;
- (ii) fair value through other comprehensive income; or
- (iii) fair value through profit or loss.

The classification requirements for debt and equity instruments are described below:

*Debt instruments*

Classification and subsequent measurement of debt instruments depend on the Group's business model for managing the asset and the cash flow characteristics of the asset.

A debt instrument shall be measured at amortised cost if all of the following conditions are met:

- (i) the financial asset is held within a business model whose objective is to hold financial assets in order to collect contractual cash flows;
- (ii) the contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding; and
- (iii) they are not designated at financial assets at fair value through profit or loss.

The carrying amount of these assets is adjusted by any expected credit loss allowance. Interest income from these financial assets is measured using the effective interest rate method.

A debt instrument shall be measured at fair value through other comprehensive income if all of the following conditions are met:

- (i) the financial asset is held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets;
- (ii) the contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding; and
- (iii) they are not designated at fair value through profit or loss.

When the financial asset measured at fair value through other comprehensive income is derecognised, the cumulative gain or loss previously recognised in other comprehensive income is reclassified from equity to profit or loss. Interest income from these financial assets is measured using the effective interest rate method and recognised in profit or loss.

A debt instrument shall be measured at fair value through profit or loss unless it is measured at amortised cost or at fair value through other comprehensive income.

Financial assets with embedded derivatives are considered in their entirety when determining whether their cash flows are solely payment of principal and interest.

The Group reclassifies debt investments when and only when its business model for managing those assets changes. The reclassification takes place from the start of the first reporting period following the change.

The Group may also irrevocably designate financial assets at fair value through profit or loss if doing so significantly reduces or eliminates a mismatch created by assets and liabilities being measured on different bases.

#### *Equity instruments*

The Group subsequently measures all equity investments at fair value through profit or loss, except where the Group's management has elected, at initial recognition, to irrevocably designate an equity investment at fair value through other comprehensive income.

At initial recognition, the Group may make an irrevocable election to present in other comprehensive income subsequent changes in the fair value of an investment in an equity instrument that is neither held for trading nor contingent consideration recognised by an acquirer in a business combination.

When this election is used, fair value gains and losses are recognised in other comprehensive income and are not subsequently reclassified to profit or loss, including on disposal. Dividends from these investments are recognised in profit or loss. Impairment losses (and reversal of impairment losses) are not reported separately from other changes in fair value. Dividends, when representing a return on such investments, continue to be recognised in profit or loss as other income when the Group's right to receive payments is established.

Gains and losses on equity investments at fair value through profit or loss are included in the profit or loss.

*Financial liabilities*

In both the current and prior period, financial liabilities are classified as subsequently measured at amortised cost, except for:

- (i) Financial liabilities at fair value through profit or loss. Such liabilities, including derivatives, and financial liabilities designated as fair value through profit or loss. The Group shall present a gain or loss on those financial liabilities designated as at fair value through profit or loss as follows: the amount of change in the fair value of the financial liability that is attributable to changes in the credit risk of that liability shall be presented in other comprehensive income, and the remaining amount of change in the fair value of the liability shall be presented in profit or loss unless the treatment of the effects of changes in the liability's credit risk would create or enlarge an accounting mismatch in profit or loss.
- (ii) Financial liabilities arising from the transfer of financial assets which did not qualify for derecognition or when the continuing involvement approach applies. When the transfer of financial asset did not qualify for derecognition, a financial liability is recognised for the consideration received for the transfer. In subsequent periods, the Group recognises any expense incurred on the financial liability.
- (iii) Financial guarantee that is not categorised in item (i) and (ii) above, and loan commitment at a below-market interest rate and not categorised in item (i) above.

(c) ***Derecognition***

*Derecognition of financial assets*

A financial asset (or, where applicable, a part of a financial asset or part of a group of similar financial assets) is primarily derecognised (i.e., removed from the Group's consolidated balance sheet) when:

- (i) the rights to receive cash flows from the asset have expired; or
- (ii) the Group has transferred its rights to receive cash flows from the asset or has assumed an obligation to pay the received cash flows in full without material delay to a third party under a "pass-through" arrangement; and either (a) the Group has transferred substantially all the risks and rewards of the asset, or (b) the Group has neither transferred nor retained substantially all the risks and rewards of the asset, but has transferred control of the asset.

When the Group has transferred its rights to receive cash flows from an asset or has entered into a pass-through arrangement, it evaluates if and to what extent it has retained the risk and rewards of ownership of the asset. When it has neither transferred nor retained substantially all the risks and rewards of the asset nor transferred control of the asset, the Group continues to recognise the transferred asset to the extent of the Group's continuing involvement. In that case, the Group also recognises an associated liability. The transferred asset and the associated liability are measured on a basis that reflects the rights and obligations that the Group has retained.

Continuing involvement that takes the form of a guarantee over the transferred asset is measured at the lower of the original carrying amount of the asset and the maximum amount of consideration that the Group could be required to repay.

*Derecognition of financial liabilities*

A financial liability is derecognised when the obligation under the liability is discharged or expires. When an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as a derecognition of the original liability and a recognition of a new liability.



**(d) Impairment**

The Group assesses on a forward-looking basis the ECL associated with its debt instrument assets carried at amortised cost, and at fair value through other comprehensive income, receivables, contractual assets and with the exposure arising from loan commitments and financial guarantee contracts. The Group recognises a loss allowance for such losses at each reporting date.

At each reporting date, the Group shall assess whether the credit risk on a financial instrument has increased significantly since initial recognition.

The measurement of ECL reflects: An unbiased and probability-weighted amount that is determined by evaluating a range of possible outcomes; the time value of money; and reasonable and supportable information that is available without undue cost or effort at the reporting date about past events, current conditions and forecasts of future economic conditions.

**2.10 Offsetting financial instruments**

Financial assets and liabilities are offset and the net amount reported in the consolidated balance sheets when there is a legally enforceable right to offset the recognised amounts and there is an intention to settle on a net basis or realise the asset and settle the liability simultaneously. The legally enforceable right must not be contingent on future events and must be enforceable in the normal course of business and in the event of default, insolvency or bankruptcy of the Group or the counterparty.

**2.11 Inventories**

Inventories including raw materials and consumable materials are stated at the lower of cost and net realisable value. Costs are assigned to individual items of inventory on the basis of weighted average costs. Costs of purchased inventory are determined after deducting rebates and discounts. Net realisable value is the estimated selling price in the ordinary course of business less the estimated costs of completion and the estimated costs necessary to make the sale.

**2.12 Trade and other receivables**

Trade receivables are amounts due from customers for merchandise sold or services performed in the ordinary course of business. If collection of trade and other receivables is expected in one year or less (or in the normal operating cycle of the business if longer), they are classified as current assets. If not, they are presented as non-current assets.

Trade and other receivables are recognised initially at fair value and subsequently measured at amortised cost using the effective interest method, less allowance for impairment.

**2.13 Cash and cash equivalents**

For the purpose of presentation in the statement of cash flows, cash and cash equivalents includes cash on hand, deposits held at call with financial institutions, other short-term, highly liquid investments with original maturities of three months or less that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value, and bank overdrafts. Bank overdrafts are shown within borrowings in current liabilities in the balance sheet.

**2.14 Share capital**

Ordinary shares are classified as equity.

Incremental costs directly attributable to the issue of new shares or options are shown in equity as a deduction, net of tax, from the proceeds.

**2.15 Trade and other payables**

These amounts represent liabilities for goods and services provided to the Group prior to the end of financial year which are unpaid. Trade and other payables are presented as current liabilities unless payment is not due within 12 months after the reporting period. They are recognised initially at their fair value and subsequently measured at amortised cost using the effective interest method.

**2.16 Borrowings**

Borrowings are initially recognised at fair value, net of transaction costs incurred. Borrowings are subsequently measured at amortised cost. Any difference between the proceeds (net of transaction costs) and the redemption amount is recognised in profit or loss over the period of the borrowings using the effective interest method. Fees paid on the establishment of loan facilities are recognised as transaction costs of the loan to the extent that it is probable that some or all of the facility will be drawn down. In this case, the fee is deferred until the draw down occurs. To the extent there is no evidence that it is probable that some or all of the facility will be drawn down, the fee is capitalised as a prepayment for liquidity services and amortised over the period of the facility to which it relates.

Borrowings are removed from the balance sheet when the obligation specified in the contract is discharged, cancelled or expired. The difference between the carrying amount of a financial liability that has been extinguished or transferred to another party and the consideration paid, including any non-cash assets transferred or liabilities assumed, is recognised in profit or loss as other income or finance costs.

Borrowings are classified as current liabilities unless the Group has an unconditional right to defer settlement of the liability for at least 12 months after the end of the reporting period.

**2.17 Borrowing costs**

General and specific borrowing costs that are directly attributable to the acquisition, construction or production of a qualifying asset are capitalised during the period of time that is required to complete and prepare the asset for its intended use or sale. Qualifying assets are assets that necessarily take a substantial period of time to get ready for their intended use or sale.

Investment income earned on the temporary investment of specific borrowings pending their expenditure on qualifying assets is deducted from the borrowing costs eligible for capitalisation.

Other borrowing costs are expensed in the period in which they are incurred.

**2.18 Current and deferred income tax**

The income tax expense or credit for the period is the tax payable on the current period's taxable income based on the applicable income tax rate for each jurisdiction adjusted by changes in deferred tax assets and liabilities attributable to temporary differences and to unused tax losses.

**(a) Current income tax**

The current income tax charge is calculated on the basis of the tax laws enacted or substantively enacted at the end of the reporting period in the countries where the Company and its subsidiaries operate and generate taxable income. Management periodically evaluates positions taken in tax returns with respect to situations in which applicable tax regulation is subject to interpretation. It establishes provisions where appropriate on the basis of amounts expected to be paid to the tax authorities.

**(b) Deferred income tax**

Deferred income tax is provided in full, using the liability method, on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the consolidated financial statements. However, deferred tax liabilities are not recognised if they arise from the initial recognition of goodwill. Deferred income tax is also not accounted for if it arises from initial recognition of an asset or liability in a transaction other than a business combination that at the time of the transaction affects neither accounting nor taxable profit or loss. Deferred income tax is determined using tax rates (and laws) that have been enacted or substantively enacted by the end of the reporting period and are expected to apply when the related deferred income tax asset is realised or the deferred income tax liability is settled.

Deferred tax assets are recognised only if it is probable that future taxable amounts will be available to utilise those temporary differences and losses.

Deferred tax liabilities and assets are not recognised for temporary differences between the carrying amount and tax bases of investments in foreign operations where the Group is able to control the timing of the reversal of the temporary differences and it is probable that the differences will not reverse in the foreseeable future.

Deferred tax assets and liabilities are offset when there is a legally enforceable right to offset current tax assets and liabilities and when the deferred tax balances relate to the same taxation authority. Current tax assets and tax liabilities are offset where the entity has a legally enforceable right to offset and intends either to settle on a net basis, or to realise the asset and settle the liability simultaneously.

Current and deferred tax is recognised in profit or loss, except to the extent that it relates to items recognised in other comprehensive income or directly in equity. In this case, the tax is also recognised in other comprehensive income or directly in equity, respectively.

## **2.19 Employee benefits**

### **(a) Short-term obligations**

Liabilities for wages and salaries, including non-monetary benefits and accumulating sick leave that are expected to be settled wholly within 12 months after the end of the period in which the employees render the related service are recognised in respect of employees' services up to the end of the reporting period and are measured at the amounts expected to be paid when the liabilities are settled. The liabilities are presented as current employee benefit obligations in the balance sheet.

### **(b) Post-employment obligations**

The Group incorporated in the PRC contributes based on certain percentage of the salaries of the employees to a defined contribution retirement benefit plan organised by relevant government authorities in the PRC on a monthly basis. The government authorities undertake to assume the retirement benefit obligations payable to all existing and further retired employees under these plans and the Group has no further obligation for post-retirement benefits beyond the contributions made. Contributions to these plans are expensed as incurred. Assets of the plans are held and managed by government authorities and are separate from those of the Group.

## **2.20 Interest income**

Interest income is recognised using the effective interest method.

## **2.21 Share-based payments**

Share-based compensation benefits are provided to employees via the Employee Share Plans. Information relating to these schemes is set out in Note 24.

The fair value of awarded shares granted to employees under Employee Share Plans less amount paid by employees is recognised as an employee benefits expense over the relevant service period, being the vesting period of the shares, and the credit is recognised in equity in the share-based compensation reserve. The fair value of the shares is measured at the grant date. The number of shares expected to vest is estimated based on the non-market vesting conditions. The estimates are revised at the end of each reporting period and adjustments are recognised in profit or loss and the share-based compensation reserve. Where shares are forfeited due to a failure by the employee to satisfy the service conditions, any expenses previously recognised in relation to such shares are reversed effective at the date of the forfeiture.

## **2.22 Revenue recognition**

Revenues are recognised when, or as, the control of the goods or services is transferred to the customer. Depending on the terms of the contract and the laws applicable, control of the goods and services may be transferred over time or at a point in time. Control of the goods and services is transferred over time if the Group's performance:

- provides all of the benefits received and consumed simultaneously by the customer;
- creates and enhances an asset that the customer controls as the Group performs; or
- does not create an asset with an alternative use to the Group and the Group has an enforceable right to payment for performance completed to date.

If control of the goods and services transfers over time, revenue is recognised over the period of the contract by reference to the progress towards complete satisfaction of that performance obligation. Otherwise, revenue is recognised at a point in time when the customer obtains control of the goods and services.

The progress towards complete satisfaction of performance obligation, depending on the nature of the good and service to be transferred, is measured based on one of the following methods that best depicts the Group's performance in satisfying the performance obligation:

- direct measurements of the value of individual services transferred by the Group to the customer; or
- the Group's efforts or inputs to the satisfaction of the performance obligation.

When determining the transaction price to be allocated to different performance obligations, the Group first determines the services fees that the Group entitles in the contract period and adjusts the transaction price for variable considerations and significant financing component, if any. The Group includes in the transaction price some or all of an amount of variable considerations only to the extent that it is highly probable that a significant reversal in the amount of cumulative revenue recognised will not occur when the uncertainty associated with the variable consideration is subsequently resolved.

If contracts involve the sale of multiple goods, goods followed by related services, or multiple services, the transaction price will be allocated to each performance obligation based on their relative stand-alone selling prices. If the stand-alone selling prices are not directly observable, they are estimated based on expected cost plus a margin or adjusted market assessment approach, depending on the availability of observable information.

When either party to a contract has performed, the Group presents the contract in the balance sheet as a contract asset or a contract liability, depending on the relationship between the entity's performance and the customer's payment.

A contract asset is the Group's right to consideration in exchange for goods or services that the Group has transferred to a customer.

Incremental costs incurred to obtain a contract, if recoverable, are capitalised and presented as contract assets and subsequently amortised when the related revenue is recognised.

If a customer pays consideration or the Group has a right to an amount of consideration that is unconditional, before the Group transfers a good or service to the customer, the Group presents the contract as a contract liability when the payment is made or the a receivable is recorded (whichever is earlier). A contract liability is the Group's obligation to transfer goods or services to a customer for which the Group has received consideration (or an amount of consideration is due) from the customer.

A receivable is recorded when the Group has an unconditional right to consideration. A right to consideration is unconditional if only the passage of time is required before payment of that consideration is due.

During the Track Record Period, revenue of the Group was arising from transferring study data of research and development service results to a third party. Revenue was recognised only when it satisfies a performance obligation by transferring the control of the study data and there is no unfulfilled obligation that could affect the buyer's acceptance of the results. Before transferring the results, the counterparty had no right to receive and consume the benefits of the research and development services and the Group had no enforceable right to the payment for performance of the research and development services.

## **2.23 Government grants**

Grants from the government are recognised at their fair value where there is a reasonable assurance that the grant will be received and the Group will comply with all attached conditions.

Where the grants relates to an expense item, it is recognised as income on a systematic basis over the period that the costs, which it is intended to compensate, are expensed. Where the grants relates to an asset, the fair value is credited to a deferred income account and is released to the statement of comprehensive income over the expected useful life of the relevant asset on straight-line basis or deducted from the carrying amount of the asset and released to the statement of comprehensive income by way of a reduced depreciation charge.

## **2.24 Leases**

Leases in which a significant portion of the risks and rewards of ownership are not transferred to the Group as lessee are classified as operating leases. Payments made under operating leases (net of any incentives received from the lessor) are charged to profit or loss on a straight-line basis over the period of the lease.

**2.25 New standards not early adopted by the Group**

The following new standards, amendments and interpretations to existing standards which have been issued but not yet effective on 1 January 2018 are applicable to the Group and have not been early adopted by the Group:

		<b>Effective for annual periods beginning on or after</b>
HKFRS 16	Leases	1 January 2019
HK (IFRIC) 23	Uncertainty over income tax treatments	1 January 2019
Amendments to HKAS 19	Employee benefits on plan amendment, curtailment or settlement	1 January 2019
Amendments to HKAS 28	'Investments in associates', on long term interests in associates and joint ventures	1 January 2019
Amendments to HKFRS 3, HKFRS 11, HKAS 12 and HKAS 23	Annual improvements to HKFRS Standards 2015-2017 Cycle	1 January 2019
Amendment to HKFRS 9	Financial instruments on prepayment features with negative compensation	1 January 2019
Amendment to HKFRS 3	Definition of a business	1 January 2020
HKFRS 17	Insurance contracts	1 January 2021
Amendments to HKFRS 10 and HKAS 28	Sale or contribution of assets between an investor and its associate or joint venture	To be determined

HKFRS 16, 'Leases' addresses the definition of a lease, recognition and measurement of leases and establishes principles for reporting useful information to users of financial statements about the leasing activities of both lessees and lessors. A key change arising from HKFRS 16 is that most operating leases will be accounted for on balance sheet for lessees. The standard replaces HKAS 17 'Leases', and related interpretations.

The Group is a lessee of certain offices, buildings and motor vehicles, which are currently accounted for as operating leases under HKAS 17 based on the accounting policy set out in Note 2.24. Under HKFRS 16, lessees are required to recognise a lease liability reflecting future lease payments and a right-of-use asset for all lease contracts in the balance sheet with exemption for lease of low-value assets or short term leases. Lessees will also have to present interest expense on the lease liability and depreciation on the right-of-use asset in the statement of comprehensive income. In comparison with operating leases under HKAS 17, this will change not only the allocation of expense but also the total amount of expenses recognised for each period of the lease term. The combination of a straight-line depreciation of the right-of-use asset and the effective interest rate method applied to the lease liability will result a higher total charge to profit or loss in the initial years of the lease, and decreasing expenses during the latter part of the lease term.

As at 31 December 2018, total non-cancellable operating lease commitments of the Group amounting to RMB25,853,000 as separately disclosed in Note 33 and the leasing expense for 31 December 2018 was RMB5,960,000.

The Group will apply the standard from its mandatory adoption date of 1 January 2019. The Group intends to apply the simplified transition approach and will not restate comparative amounts for the year prior to first adoption. Right-of-use assets will be measured at the amount of the lease liability on adoption (adjusted for any prepaid or accrued lease expenses).

The Group expects to recognise lease liabilities of approximately RMB20,672,000 and right-of-use assets of approximately RMB16,865,000 on 1 January 2019 after adjustments for prepayments and accrued lease payments recognised as at 31 December 2018. Overall prepayments for lease agreements in other receivables and prepayments and rental payable in other payables and accruals of the Group will decrease as at 1 January 2019. The change of net assets will be insignificant. The decrease of the net loss of the Group will also be insignificant in 2019 because the lease agreements are in the later years of the whole leasing period. Operating cash flows will increase and financing cash flows decrease as repayment of the principal portion of the lease liabilities will be classified as cash flows from financing activities.

HK (IFRIC) 23 applies to all aspects of income tax accounting where there is an uncertainty regarding the treatment of an item, including taxable profit or loss, the tax bases of assets and liabilities, tax losses and credits and tax rates. The Interpretations Committee clarified how the recognition and measurement requirements of HKAS 12 Income taxes, are applied where there is uncertainty over income tax treatments. An uncertain tax treatment is any tax treatment applied by an entity where there is uncertainty over whether that approach will be accepted by the tax authority.

The amendments to HKFRS 10 and HKAS 28 address an inconsistency between HKFRS 10 and HKAS 28 in the sale and contribution of assets between an investor and its associate or joint venture. A full gain or loss is recognised when a transaction involves a business. A partial gain or loss is recognised when a transaction involves assets that do not constitute a business, even if those assets are in a subsidiary.

### 3. FINANCIAL RISK MANAGEMENT

The Group's risk management is carried out by the treasury department under policies approved by the board of directors. Group treasury identifies, evaluates and hedges financial risks in close co-operation with the Group's operating units. The board provides written principles for overall risk management, as well as policies covering specific areas, such as foreign exchange risk, interest rate risk, credit risk, use of derivative financial instruments and non-derivative financial instruments, and investment of excess liquidity.

#### 3.1 Financial risk factors

##### (a) *Market risk*

###### (i) *Foreign exchange risk*

Foreign currency risk is the risk that the value of a financial instrument fluctuates because of the change in foreign exchange rates.

The Group mainly operates in the PRC with most of the transactions settled in RMB. The Group is not exposed to foreign exchange risk as there are no significant financial assets or liabilities of the Group denominated in the currencies other than the functional currency, except for the cash at bank in USD which were primarily received from the investors as capital contributions as mentioned in Note 21 and 22.

As at 31 December 2016, 2017 and 2018, if RMB strengthened or weakened by 10% against USD with all other variables held constant, loss for each of the years ended 31 December 2016, 2017 and 2018 would decrease or increase by RMB4,468,000, RMB625,000 and RMB334,000 respectively.

###### (ii) *Cash flow and fair value interest rate risk*

The Group is exposed to interest rate risk primarily in relation to cash and cash equivalents, wealth management products and borrowings. The Group generally assumes borrowings to fund capital expenditures and working capital requirements. The risk is mainly managed by the Group by maintaining an appropriate mix between fixed and floating rate borrowings.

The Group's exposures to interest rates on financial assets and financial liabilities are detailed in the liquidity risk management section of this note. An analysis of borrowings by maturities is provided in Note 27.

During the Track Record Period, all the interests have been capitalised. Assuming that there was no interest capitalisation effect, the Group performs a sensitivity analysis below which has been determined based on the exposure to interest rates for financial assets and financial liabilities at the end of the reporting period. For floating rate liabilities, the analysis is prepared assuming the amount of the liability outstanding at the end of the reporting period was outstanding for the whole year.

A 50 basis point increase or decrease represents management's assessment of the reasonably possible change in interest rates. If interest rates had been 50 basis points higher and all other variables were held constant, the Group's loss would approximately increase by RMB347,000, RMB542,000 and RMB750,000 for each of the years ended 31 December 2016, 2017 and 2018 respectively.

**(b) Credit risk**

Credit risk mainly arises from short-term deposits, bank balance, financial assets at amortised cost, financial assets at fair value through profit or loss, trade and other receivables. The maximum exposure to credit risk is represented by the carrying amount of each financial asset in the consolidated balance sheet.

The credit risk of financial assets at amortised cost, financial assets at fair value through profit or loss, short-term bank deposits and bank balance is consider to be low because the counterparties are state-owned or reputable commercial banks which are high-credit-quality financial institutions located in the PRC. The financial assets at amortised cost are short-term wealth management products with fixed rate. The directors of the Company do not expect any losses and no loss allowance provision for financial assets at amortised cost, financial assets at fair value through profit or loss, short-term bank deposits and bank balance.

For trade and other receivables, management makes periodic assessments as well as individual assessment on the recoverability based on historical settlement records and past experience and adjusts for forward looking information. The Group applies the simplified approach for the Group's trade receivables using a lifetime expected loss provision. As at 31 December 2016, 2017 and 2018, the Group had no balance in respect of trade receivables. Thus no loss allowance provision for trade receivables was recognised during the Track Record Period.

Management has assessed that during the Track Record Period, other receivables have not had a significant increase in credit risk since initial recognition. Thus, a 12-month expected credit loss approach that results from possible default event within 12 months of each reporting date is adopted by management. The directors of the Company does not expect any losses from non-performance by the counterparties of other receivables and no loss allowance provision for other receivables was recognised.

**(c) Liquidity risk**

The Group aims to maintain sufficient cash to meet operating capital requirements.

The table below analyses the Group's financial liabilities into relevant maturity groupings based on the remaining period at the balance sheet date to the contractual maturity date. The amounts disclosed in the table are the contractual undiscounted cash flows.

	<b>Less than 1 year</b>	<b>Between 1 and 2 years</b>	<b>Between 2 and 5 years</b>	<b>Over 5 years</b>	<b>Total</b>
	<i>RMB'000</i>	<i>RMB'000</i>	<i>RMB'000</i>	<i>RMB'000</i>	<i>RMB'000</i>
<b>As at 31 December 2016</b>					
Trade payables	734	–	–	–	734
Other payables	19,233	–	–	–	19,233
Borrowings	3,567	3,567	66,137	12,138	85,409
<b>Total</b>	<b>23,534</b>	<b>3,567</b>	<b>66,137</b>	<b>12,138</b>	<b>105,376</b>
<b>As at 31 December 2017</b>					
Trade payables	1,879	–	–	–	1,879
Other payables	99,751	–	–	–	99,751
Borrowings	5,574	5,574	118,462	–	129,610
<b>Total</b>	<b>107,204</b>	<b>5,574</b>	<b>118,462</b>	<b>–</b>	<b>231,240</b>
<b>As at 31 December 2018</b>					
Trade payables	6,651	–	–	–	6,651
Other payables	85,460	–	–	–	85,460
Borrowings	7,838	20,726	145,411	–	173,975
<b>Total</b>	<b>99,949</b>	<b>20,726</b>	<b>145,411</b>	<b>–</b>	<b>266,086</b>



### 3.2 Capital management

The Group's objectives when managing capital are to safeguard the Group's ability to continue as a going concern in order to provide returns for shareholders and benefits for other stakeholders and to maintain an optimal capital structure to reduce the cost of capital.

The Group monitors capital on the basis of the gearing ratio. This ratio is calculated as net debt divided by total capital. Net debt is calculated as total borrowings less "cash and cash equivalents". Total capital is calculated as "equity" as shown in the consolidated balance sheet plus net debt.

The gearing ratio as at 31 December 2016, 2017 and 2018 are as follows:

	As at 31 December		
	2016	2017	2018
Gearing ratio	7%	13%	16%

### 3.3 Fair value estimation

This section explains the judgements and estimates made in determining the fair values of the financial instruments that are recognised and measured at fair value in the financial statements. To provide an indication about the reliability of the inputs used in determining fair value, the group has classified its financial instruments into the three levels as following:

- (i) Quoted prices (unadjusted) in active markets for identical assets or liabilities (level 1).
- (ii) Inputs other than quoted prices included within level 1 that are observable for the asset or liability, either directly (that is, as prices) or indirectly (that is, derived from prices) (level 2).
- (iii) Inputs for the asset or liability that are not based on observable market data (that is, unobservable inputs) (level 3).

The following table presents the Group's assets that are measured at fair value at 31 December 2016, 2017 and 2018.

	Level 1 RMB'000	Level 2 RMB'000	Level 3 RMB'000	Total RMB'000
<b>As at 31 December 2016</b>				
<b>Financial assets at fair value through profit or loss</b>				
– Wealth management products with floating rates	–	–	–	–
<b>As at 31 December 2017</b>				
<b>Financial assets at fair value through profit or loss</b>				
– Wealth management products with floating rates	–	–	132,636	132,636
<b>As at 31 December 2018</b>				
<b>Financial assets at fair value through profit or loss</b>				
– Wealth management products with floating rates	–	–	–	–



There were no transfers between levels 1, 2 and 3 during the years.

**(a) Financial instruments in Level 3**

The following table presents the changes in level 3 instruments for the years ended 31 December 2016, 2017 and 2018, respectively.

	Wealth management products with floating rates		
	Year ended 31 December		
	2016	2017	2018
	RMB'000	RMB'000	RMB'000
Opening balance	–	–	132,636
Additions	–	661,550	309,200
Settlements	–	(531,395)	(444,487)
Gain and losses recognised in profit or loss	–	2,481	2,651
Closing balance	–	132,636	–
Total gains or losses for the year included in “Other income”	–	1,845	2,651
Changes in unrealised gains or losses for the year included in “Other income” at the end of the year	–	636	–

**(b) Valuation process, inputs and relationship to fair value**

The finance department of the Group performs the valuation of level 3 financial instruments for financial reporting purposes. It manages the valuation exercise of the investments on a case by case basis. At least once a year, the finance department uses valuation techniques to determine the fair value of the Group's level 3 instruments and reports to senior management and the directors of the Company.

The valuation of the level 3 instruments mainly include financial assets at fair value through profit or loss (Note 19). The following table summarises the quantitative information about the significant unobservable inputs used in the recurring level 3 fair value measurements.

Description	Fair value as at 31 December			Unobservable inputs	Range as at 31 December			Relationship of unobservable input to fair value
	2016	2017	2018		2016	2017	2018	
	RMB'000	RMB'000	RMB'000					
Financial assets at fair value through profit or loss	–	132,636	–	Expected rate of return	N/A	3.1%-4.9%	–	The higher the expected rate of return, the higher the fair value

If the unobservable inputs, the expected return, is 50 basis points higher/lower, the loss before income tax for each of the years ended 31 December 2017 and 2018 would approximately decrease/increase by RMB291,000 and RMB298,000, respectively.

**4. CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS**

The preparation of financial statements requires the use of accounting estimates which, by definition, will seldom equal the actual results. Management also needs to exercise judgement in applying the Group's accounting policies.

Estimates and judgements are continually evaluated. They are based on historical experience and other factors, including expectations of future events that may have a financial impact on the entity and that are believed to be reasonable under the circumstances.

**(a) Intangible assets not available for use****(i) Capitalisation**

Certain clinical trial expenses incurred on development projects are recognised as intangible assets when it is probable that the projects will be successful considering the criteria set out in Note 2.7. The Group's development activities are tracked by its finance department which combines the evidence from research and development, clinical and marketing department and documents to support the basis of determining if and when the criteria are met.

**(ii) Impairment**

The Group is required to test intangible development assets not available for use on an annual basis. Intangible assets are tested whenever events or changes in circumstances indicate that the carrying amount of those assets exceeds its recoverable amount. The recoverable amount is determined based on the higher of fair value less cost to sell and value in use.

Determination of the value in use is an area involving management judgement in order to assess whether the carrying value of the intangible development assets not available for use can be supported by the net present value of future cash flows. In calculating the net present value of the future cash flows, certain assumptions are required to be made in respect of highly uncertain matters including management's expectations of (I) timing of commercialisation, productivity and market size; (II) revenue compound growth rate; (III) costs and operating expenses; and (IV) the selection of discount rates to reflect the risks involved.

**(b) Recognition of share-based compensation expenses**

As mentioned in Note 24, equity-settled share-based compensation plans were granted to the employees. The directors have used the discounted cash flow method to determine the total fair value of the awarded shares granted to employees, which is to be expensed over the vesting period. Significant estimate on assumptions, such as the discount rate, risk-free interests rate, expected volatility, estimation of vesting period and dividend yield, is required to be made by the directors in applying the discounted cash flow method.

**(c) Current and deferred income taxes**

There are many transactions and events for which the ultimate tax determination is uncertain during the ordinary course of business. Significant judgment is required from the Group in determining the provision for income taxes. Where the final tax outcome of these matters is different from the amounts that were initially recorded, such differences will impact the income tax and deferred tax provisions in the period in which such determination is made.

The Group recognises deferred tax assets based on estimates that it is probable to generate sufficient taxable profits in the foreseeable future against which the deductible losses will be utilised. The recognition of deferred tax assets mainly involved management's judgments and estimations about the timing and the amount of taxable profits of the companies who had tax losses. During the Track Record Period, deferred tax assets have not been recognised in respect of these accumulated tax losses and other deductible temporary differences based on the fact that there were several vaccine candidates of the Company and most of them were in earlier research and development stage and the future taxable profits would be uncertain.

## 5. SEGMENT

Management has determined the operating segments based on the reports reviewed by CODM. The CODM, who is responsible for allocating resources and assessing performance of the operating segment, has been identified as the executive directors of the Group.

During the Track Record Period, the Group is principally engaged in the research and development of vaccine products for human use. Management reviews the operating results of the business as one operating segment to make decisions about resources to be allocated. Therefore, the CODM of the Company regards that there is only one segment which is used to make strategic decisions.

The major operating entity of the Group is domiciled in the PRC. Accordingly, the Group's results were primarily derived in the PRC during the Track Record Period.

As at 31 December 2016, 2017 and 2018, all of the Group's assets were located in the PRC.

## 6. REVENUE

	Year ended 31 December		
	2016	2017	2018
	RMB'000	RMB'000	RMB'000
Revenue from research and development services			
– at a point in time	–	–	1,132

During the Track Record Period, there was no remaining performance obligation that was unsatisfied or partially unsatisfied as at 31 December 2016, 2017 and 2018.

## 7. OTHER INCOME

	Year ended 31 December		
	2016	2017	2018
	RMB'000	RMB'000	RMB'000
Income from vaccine components	–	–	1,438
Investment income on wealth management products	1,678	11,810	12,438
Government grants	8,040	8,995	5,842
Others	155	187	244
	9,873	20,992	19,962

## 8. EXPENSES BY NATURE

	Year ended 31 December		
	2016	2017	2018
	RMB'000	RMB'000	RMB'000
Employee benefits expenses (Note 9)	31,698	44,377	76,433
Raw materials and consumables used	8,680	12,709	22,940
Listing expenses	–	–	16,391
Depreciation and amortisation	6,402	8,489	12,019
Utilities and office expenses	3,260	5,648	7,643
Testing fee	3,462	3,345	6,171
Operating lease rental expenses	3,150	3,303	5,960
Travelling and transportation expenses	1,783	2,613	3,776
Consulting fee	650	1,002	2,338
Business tax and other transaction taxes	434	789	2,171
Auditors' remuneration			
– Audit services	110	50	150
– Other services	220	574	31
Others	2,710	1,887	3,854
	62,559	84,786	159,877

## 9. EMPLOYEE BENEFITS EXPENSES

	Year ended 31 December		
	2016	2017	2018
	RMB'000	RMB'000	RMB'000
Wages, salaries and bonuses	16,567	28,177	47,484
Share-based compensation expenses	10,000	7,309	15,780
Social security costs and housing benefits	3,354	5,706	8,754
Other employee benefits	1,777	3,185	4,415
	<u>31,698</u>	<u>44,377</u>	<u>76,433</u>

The employees of the Group in the PRC are members of a state-managed pension scheme operated by the PRC Government. The Group is required to contribute a specified percentage of payroll costs as determined by local government authority to the pension obligations to fund the benefits. The only obligation of the Group with respect to the retirement benefits scheme is to make the specified contribution under the scheme.

## (a) Employee benefit expenses by nature

Employee benefit expenses were charged in the following categories in the consolidated statements of comprehensive income:

	Year ended 31 December		
	2016	2017	2018
	RMB'000	RMB'000	RMB'000
Research and development expenses	24,555	34,565	60,411
Administrative expenses	7,143	9,812	16,022
	<u>31,698</u>	<u>44,377</u>	<u>76,433</u>

## (b) Five highest paid individuals

For the years ended 31 December 2016, 2017 and 2018, the five individuals whose emoluments were the highest in the Group include 0, 0 and 2 directors, whose emoluments are reflected in the analysis presented in Note 35. The emoluments payable to the remaining individuals were as follows:

	Year ended 31 December		
	2016	2017	2018
	RMB'000	RMB'000	RMB'000
Salaries	1,037	1,076	1,356
Discretionary bonuses	479	933	585
Share-based compensation expenses (Note 24)	3,076	4,679	2,904
Social security costs, housing benefits and other employee benefits	210	207	121
	<u>4,802</u>	<u>6,895</u>	<u>4,966</u>

The remaining highest paid individuals fell within the following bands:

	Year ended 31 December		
	2016	2017	2018
Emolument bands			
HK\$500,001 – HK\$1,000,000	1	2	–
HK\$1,000,001 – HK\$1,500,000	4	–	–
HK\$1,500,001 – HK\$2,000,000	–	2	1
HK\$2,000,001 – HK\$2,500,000	–	–	2
HK\$3,000,001 – HK\$3,500,000	–	1	–
	<u>5</u>	<u>5</u>	<u>3</u>

During the Track Record Period, no emoluments have been paid to the five highest individuals of the Group as an inducement to join or upon joining the Group or as compensation for loss of office.

#### 10. OTHER LOSSES/(GAINS) – NET

	Year ended 31 December		
	2016	2017	2018
	<i>RMB'000</i>	<i>RMB'000</i>	<i>RMB'000</i>
Loss/(gains) on disposal of property, plant and equipment	–	2	(105)
Others	–	–	(100)
	<u>–</u>	<u>2</u>	<u>(205)</u>

#### 11. FINANCE INCOME/(COSTS) – NET

	Year ended 31 December		
	2016	2017	2018
	<i>RMB'000</i>	<i>RMB'000</i>	<i>RMB'000</i>
<b>Finance income</b>			
Interest income on bank deposits	150	228	205
Exchange gains on foreign currency deposits	2,685	–	92
	<u>2,835</u>	<u>228</u>	<u>297</u>
<b>Finance costs</b>			
Interest expense on bank borrowings	(436)	(4,702)	(7,662)
Less: borrowing costs capitalised in qualifying assets ( <i>Note 14</i> )	436	4,702	7,662
	<u>–</u>	<u>(882)</u>	<u>–</u>
Charged to statement of comprehensive income	–	–	–
Exchange losses on foreign currency deposits	–	(882)	–
	<u>–</u>	<u>(882)</u>	<u>–</u>
<b>Finance income/(costs) – net</b>	<u>2,835</u>	<u>(654)</u>	<u>297</u>

## 12. INCOME TAX EXPENSE

	Year ended 31 December		
	2016	2017	2018
	RMB'000	RMB'000	RMB'000
Current income tax expense	–	–	–
Deferred income tax expense	–	–	–
	–	–	–
	<u>–</u>	<u>–</u>	<u>–</u>

The tax on the Group's loss before tax differs from the theoretical amount that would arise using the statutory tax rate as follows:

	Year ended 31 December		
	2016	2017	2018
	RMB'000	RMB'000	RMB'000
Loss before income tax	(49,851)	(64,450)	(138,281)
Tax expense calculated at statutory tax rate of 25%	(12,463)	(16,113)	(34,570)
Impact of applying lower tax rate	4,985	6,445	13,828
Expenses not deductible for taxation purposes	31	46	42
Tax loss and temporary differences not recognised as deferred tax assets	10,196	13,449	30,281
Super deduction of research and development expenses	(2,749)	(3,827)	(9,581)
	<u>–</u>	<u>–</u>	<u>–</u>
Income tax expense	<u>–</u>	<u>–</u>	<u>–</u>

On 24 November 2016, the “Certificate of New Hi-tech Enterprise” was granted to the Company, and the Company becomes eligible for a corporate income tax rate of 15% for the years ended 31 December 2016, 2017 and 2018.

Tianjin Qianyi, Tianjin Qianrui and Tianjin Qianzhi, the special purpose vehicles to hold the ordinary shares for the Company's employees under the Employee Share Plans disclosed in Note 24, are not subject to corporate income tax of the PRC.

**13. LOSS PER SHARE****(a) Basic loss per share**

Basic loss per share is calculated by dividing the loss attributable to owners of the Company by the weighted average number of ordinary shares outstanding during the Track Record Period.

	Year ended 31 December		
	2016	2017	2018
	RMB'000	RMB'000	RMB'000
Loss for the year	(49,851)	(64,450)	(138,281)
Weighted average number of ordinary shares in issue <i>(note)</i>	121,585	141,900	152,996
Basic loss per share (in RMB)	(0.41)	(0.45)	(0.90)

*Note:*

The weighted average number of ordinary shares in issue before the conversion into a joint stock company was determined assuming the paid-in capital had been fully converted into share capital at the same conversion ratio of 1:1 as upon transformation into joint stock company in February 2017.

Under the 2015 Employee Share Plan and 2018 Employee Share Plan, 3,474,600, 3,299,475 and 1,207,150 shares are granted to 33, 42 and 3 eligible employees, respectively. Except for 52,590 shares which was granted and vested by Tao Zhu immediately under the 2018 Employee Share Plan, the vesting requirements of remaining shares have not been satisfied during the Track Record Period. The effect of such shares held for share award scheme has not been taken into account in the calculation of basic loss per share.

**(b) Diluted loss per share**

The Group had potential dilutive shares throughout the Track Record Period related to the shares held for share award scheme. Due to the Group's negative financial results during the Track Record Period, shares held for share award scheme has anti-dilutive effect on the Group's loss per share. Thus, diluted loss per share is equivalent to the basic loss per share.

## 14. PROPERTY, PLANT AND EQUIPMENT

	Buildings	Leasehold improvements	Equipment and instruments	Motor vehicles	Office equipment and furniture	Construction in progress	Total
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
<b>As at 1 January 2016</b>							
Cost	–	6,972	18,295	803	1,247	10,722	38,039
Accumulated depreciation	–	(2,751)	(7,786)	(552)	(810)	–	(11,899)
Net book value	–	4,221	10,509	251	437	10,722	26,140
<b>Year ended 31 December 2016</b>							
Opening net book value	–	4,221	10,509	251	437	10,722	26,140
Additions	–	5,207	10,186	–	315	122,100	137,808
Transfer upon completion	–	4,090	–	–	–	(4,090)	–
Depreciation	–	(1,545)	(3,926)	(64)	(234)	–	(5,769)
Closing net book value	–	11,973	16,769	187	518	128,732	158,179
<b>As at 31 December 2016</b>							
Cost	–	16,269	28,481	803	1,562	128,732	175,847
Accumulated depreciation	–	(4,296)	(11,712)	(616)	(1,044)	–	(17,668)
Net book value	–	11,973	16,769	187	518	128,732	158,179
<b>Year ended 31 December 2017</b>							
Opening net book value	–	11,973	16,769	187	518	128,732	158,179
Additions	–	873	5,706	–	1,083	239,129	246,791
Disposals	–	–	(2)	–	–	–	(2)
Transfer upon completion	–	380	2,088	–	80	(2,548)	–
Depreciation	–	(3,034)	(4,665)	(64)	(311)	–	(8,074)
Closing net book value	–	10,192	19,896	123	1,370	365,313	396,894
<b>As at 31 December 2017</b>							
Cost	–	17,522	36,273	803	2,725	365,313	422,636
Accumulated depreciation	–	(7,330)	(16,377)	(680)	(1,355)	–	(25,742)
Net book value	–	10,192	19,896	123	1,370	365,313	396,894
<b>Year ended 31 December 2018</b>							
Opening net book value	–	10,192	19,896	123	1,370	365,313	396,894
Additions	–	–	13,325	367	2,477	105,987	122,156
Disposals	–	–	(111)	(12)	(2)	–	(125)
Transfer upon completion	20,067	–	6,369	–	–	(26,436)	–
Depreciation	(635)	(3,104)	(6,796)	(110)	(831)	–	(11,476)
Closing net book value	19,432	7,088	32,683	368	3,014	444,864	507,449
<b>As at 31 December 2018</b>							
Cost	20,067	17,522	55,033	924	5,113	444,864	543,523
Accumulated depreciation	(635)	(10,434)	(22,350)	(556)	(2,099)	–	(36,074)
Net book value	19,432	7,088	32,683	368	3,014	444,864	507,449



During the years ended 31 December 2016, 2017 and 2018, the Group has capitalised borrowing costs amounting to RMB436,000, RMB4,702,000 and RMB7,662,000, respectively on qualifying assets (Note 11). Borrowing costs were capitalised at the weighted average of its borrowings rate of 5.145%, 5.145% and 5.212% during the respective year.

Certain property, plant and equipment of the Group have been pledged as collateral under the Group's borrowing arrangements. The carrying amount of property, plant and equipment pledged as collateral were RMB61,857,000, RMB208,862,000 and RMB254,344,000 as at 31 December 2016, 2017 and 2018, respectively.

Depreciation were charged in the following categories in the consolidated statements of comprehensive income:

	Year ended 31 December		
	2016	2017	2018
	<i>RMB'000</i>	<i>RMB'000</i>	<i>RMB'000</i>
Research and development expenses	5,444	7,644	10,619
Administrative expenses	325	430	857
	<u>5,769</u>	<u>8,074</u>	<u>11,476</u>

#### 15. LAND USE RIGHTS

	Total
	<i>RMB'000</i>
<b>As at 1 January 2016</b>	
Cost	20,508
Accumulated amortisation	<u>(342)</u>
Net book value	<u>20,166</u>
<b>Year ended 31 December 2016</b>	
Opening net book value	20,166
Amortisation	<u>(410)</u>
Closing net book value	<u>19,756</u>
<b>As at 31 December 2016</b>	
Cost	20,508
Accumulated amortisation	<u>(752)</u>
Net book value	<u>19,756</u>
<b>Year ended 31 December 2017</b>	
Opening net book value	19,756
Amortisation	<u>(410)</u>
Closing net book value	<u>19,346</u>

	<b>Total</b>
	<i>RMB'000</i>
<b>As at 31 December 2017</b>	
Cost	20,508
Accumulated amortisation	(1,162)
Net book value	<u>19,346</u>
<b>Year ended 31 December 2018</b>	
Opening net book value	19,346
Amortisation	(410)
Closing net book value	<u>18,936</u>
<b>As at 31 December 2018</b>	
Cost	20,508
Accumulated amortisation	(1,572)
Net book value	<u>18,936</u>

Certain land use rights of the Group have been pledged as collateral under the Group's borrowing arrangements. The carrying amount of land use rights pledged as collateral were RMB9,493,000, RMB11,061,000 and RMB10,826,000 as at 31 December 2016, 2017 and 2018, respectively.

#### 16. INTANGIBLE ASSETS

	<b>Capitalised product development costs</b>	<b>Computer software</b>	<b>Non-proprietary technologies</b>	<b>Total</b>
	<i>RMB'000</i>	<i>RMB'000</i>	<i>RMB'000</i>	<i>RMB'000</i>
<b>As at 1 January 2016</b>				
Cost	–	8	6,700	6,708
Accumulated amortisation	–	(8)	(6,477)	(6,485)
Net book value	<u>–</u>	<u>–</u>	<u>223</u>	<u>223</u>
<b>Year ended 31 December 2016</b>				
Opening net book value	–	–	223	223
Amortisation	–	–	(223)	(223)
Closing net book value	<u>–</u>	<u>–</u>	<u>–</u>	<u>–</u>
<b>As at 31 December 2016</b>				
Cost	–	8	6,700	6,708
Accumulated amortisation	–	(8)	(6,700)	(6,708)
Net book value	<u>–</u>	<u>–</u>	<u>–</u>	<u>–</u>

	Capitalised product development costs	Computer software	Non-proprietary technologies	Total
	<i>RMB'000</i>	<i>RMB'000</i>	<i>RMB'000</i>	<i>RMB'000</i>
<b>Year ended 31 December 2017</b>				
Opening net book value	–	–	–	–
Additions	21,310	113	–	21,423
Amortisation	–	(5)	–	(5)
Closing net book value	<u>21,310</u>	<u>108</u>	<u>–</u>	<u>21,418</u>
<b>As at 31 December 2017</b>				
Cost	21,310	121	6,700	28,131
Accumulated amortisation	–	(13)	(6,700)	(6,713)
Net book value	<u>21,310</u>	<u>108</u>	<u>–</u>	<u>21,418</u>
<b>Year ended 31 December 2018</b>				
Opening net book value	21,310	108	–	21,418
Additions	10,275	17	743	11,035
Amortisation	–	(59)	(74)	(133)
Closing net book value	<u>31,585</u>	<u>66</u>	<u>669</u>	<u>32,320</u>
<b>As at 31 December 2018</b>				
Cost	31,585	138	7,443	39,166
Accumulated amortisation	–	(72)	(6,774)	(6,846)
Net book value	<u>31,585</u>	<u>66</u>	<u>669</u>	<u>32,320</u>

Amortisation charges were expensed in the following categories in the consolidated statements of comprehensive income:

	<b>Year ended 31 December</b>		
	<b>2016</b>	<b>2017</b>	<b>2018</b>
	<i>RMB'000</i>	<i>RMB'000</i>	<i>RMB'000</i>
Research and development expenses	223	–	74
Administrative expenses	–	5	59
Total	<u>223</u>	<u>5</u>	<u>133</u>

**(a) Impairment test**

Capitalised product development costs not yet available for use are tested annually based on the recoverable amount of the cash generating unit to which the intangible asset is related. As these development costs support each of the vaccine product, their appropriate cash-generating unit ("CGU") is at the product level. As at 31 December 2017 and 2018, the intangible asset is related to the capitalisation of the clinical trial expenses of two developing products: Meningococcal Conjugate Vaccine 2 (MCV 2) and Meningococcal Conjugate Vaccine 4 (MCV 4).

Relevant evaluation including forecasts and recoverable amount during the Track Record Period was performed by an independent appraiser.

The recoverable amount of each CGU was determined based upon value in use. The value in use was estimated using the discounted cash flow approach.

The revenue forecasts of MCV2 and MCV4 are based on management's expectations of timing of commercialisation, productivity and market size of related products. Based on the requirement of the approval process, management estimates that MCV2 and MCV4 will start generating revenue from 2020. Management also estimates both MCV2 and MCV4 will have ten-year useful lives from 2020 with the first five years increasing and the second five year stable and declining trend.

The percentage of costs and operating expenses to revenue is the average percentages over the revenue forecast period. It is based on the current margin levels of comparable companies, with adjustments made to reflect the expected future price rises in labour, rental and relevant equipment, which management does not expect to be able to pass on to customers through price increases.

The discount rates used are pre-tax and reflect specific risks relating to the relevant vaccine products.

The key assumptions used in the value-in-use calculations of each CGU as at 31 December 2017 and 2018, are as follows.

	As at 31 December	
	2017	2018
<b>MCV 2</b>		
For the first five years from commercialisation		
Average market share	8%	8%
Revenue (% compound growth rate)	78%	78%
Costs and operating expenses (% of revenue)	51%	51%
For the second five years from commercialisation		
Revenue (% compound growth rate)	-59%	-59%
Costs and operating expenses (% of revenue)	51%	51%
Pre-tax discount rate	24.57%	25.18%
Recoverable amount of CGU (in RMB'000)	167,639	224,881
<b>MCV 4</b>		
For the first five years from commercialisation		
Average market share	5%	5%
Revenue (% compound growth rate)	82%	82%
Costs and operating expenses (% of revenue)	51%	51%
For the second five years from commercialisation		
Revenue (% compound growth rate)	-59%	-59%
Costs and operating expenses (% of revenue)	51%	51%
Pre-tax discount rate	24.55%	25.22%
Recoverable amount of CGU (in RMB'000)	822,709	1,017,602

**(b) Impact of possible changes in key assumptions**

The recoverable amount of the CGU of MCV2 is estimated to exceed the carrying amount of the CGU at 31 December 2017 and 2018 by RMB157,403,000 and RMB210,133,000, respectively. The recoverable amount of the CGU of MCV4 is estimated to exceed the carrying amount of the CGU at 31 December 2017 and 2018 by RMB811,635,000 and RMB1,000,765,000, respectively.

Considering there was still sufficient headroom based on the assessment, the Directors and management believes that any reasonably possible change in any of these assumptions would not cause the aggregate carrying amount of the CGU to exceed its recoverable amount.

The recoverable amount of each CGU would equal its carrying amount if the key assumptions were to change as follows:

	As at 31 December	
	2017	2018
<b>MCV 2</b>		
Average market share (first five years average after commercialisation)	1.85%	1.15%
Revenue (% ten years compound growth rate from commercialisation)	-20%	-20%
Costs and operating expenses (% of revenue)	84%	87%
Pre-tax discount rate	64.18%	95.82%
<b>MCV 4</b>		
Average market share (first five years average after commercialisation)	0.33%	0.21%
Revenue (% ten years compound growth rate from commercialisation)	-29%	-30%
Costs and operating expenses (% of revenue)	91%	91%
Pre-tax discount rate	125.40%	199.54%

**17. INVENTORIES**

	As at 31 December		
	2016	2017	2018
	RMB'000	RMB'000	RMB'000
Raw materials	–	993	4,195
Consumable materials	–	631	4,299
	–	1,624	8,494

## 18. OTHER RECEIVABLES AND PREPAYMENTS

	As at 31 December		
	2016	2017	2018
	RMB'000	RMB'000	RMB'000
Value added tax recoverable	–	–	12,228
Prepayments of listing expenses	–	–	10,210
Prepayments to other suppliers	73	488	3,546
Deposits as guarantee	1,512	1,672	2,377
Prepayments to suppliers of property, plant and equipment	–	921	1,882
Receivable of investment income on wealth management products	105	1,181	466
Staff advances	–	197	300
Receivables of vaccine components sale	–	–	286
	1,690	4,459	31,295
Less: non-current portion ( <i>note</i> )	(1,433)	(1,788)	(16,166)
Current portion	257	2,671	15,129

*Note:*

The non-current portion of other receivables and prepayments includes value added tax recoverable that could not be utilised in the coming 12 months, prepayments to suppliers of property, plant and equipment, and long-term deposits as guarantee of offices and warehouses under operating lease agreements.

## 19. FINANCIAL ASSETS AT FAIR VALUE THROUGH PROFIT OR LOSS

	As at 31 December		
	2016	2017	2018
	RMB'000	RMB'000	RMB'000
Wealth management products with floating rates	–	132,636	–

## 20. FINANCIAL ASSETS AT AMORTISED COST

	As at 31 December		
	2016	2017	2018
	RMB'000	RMB'000	RMB'000
Wealth management products with fixed rates	94,000	270,000	140,000

Wealth management products with fixed rates held by the Group as at 31 December 2016, 2017 and 2018 bear interests at 2.2%-2.8%, 4.5%-4.55%, and 3.85%-4.25% per annum with a duration of 7 to 35 days, 88 to 93 days and 35 to 91 days.

## 21. CASH AND CASH EQUIVALENTS

	As at 31 December		
	2016	2017	2018
	RMB'000	RMB'000	RMB'000
Cash on hand	12	8	7
Cash at banks (a)			
– RMB deposits	7,852	13,724	54,031
– USD deposits	44,684	6,255	3,343
	52,548	19,987	57,381
Less: restricted cash (b)	–	(1,740)	–
	52,548	18,247	57,381

*Notes:*

- (a) Cash at banks earns interest at floating rates based on daily bank deposit rates. The Group's balances of cash at banks which are mainly denominated in RMB are deposited with banks in the PRC. The conversion of these RMB-denominated balances into foreign currencies and the remittance of funds out of the Mainland China are subject to relevant rules and regulations of foreign exchange control promulgated by the Government of the PRC.
- (b) As at 31 December 2017, restricted bank deposits amounting to RMB1,740,000 was related to the borrowings from Shanghai Pudong Development Bank Co., Ltd. held by the bank exclusively for the Group's payment of property, plant and equipment.

## 22. SHARE CAPITAL AND SHARE PREMIUM

	Numbers of shares	Nominal value of shares
		RMB'000
<b>Authorised and issued</b>		
Ordinary shares upon conversion	129,878,265	129,878
Issuance of shares (b)	26,566,009	26,566
As at 31 December 2017	156,444,274	156,444
Issuance of shares (c)	4,506,625	4,507
As at 31 December 2018	160,950,899	160,951

	Numbers of ordinary shares	Share capital	Share premium	Total
		RMB'000	RMB'000	RMB'000
<b>Issued and fully paid</b>				
As at 31 December 2016	–	–	–	–
Issue of ordinary shares upon conversion into a joint stock company (Note 23) (a)	129,878,265	129,878	92,122	222,000
Issuance of shares (b)	26,566,009	26,566	423,434	450,000
As at 31 December 2017	156,444,274	156,444	515,556	672,000
Issuance of shares (c)	4,506,625	4,507	12,979	17,486
As at 31 December 2018	160,950,899	160,951	528,535	689,486

*Notes:*

- (a) In February 2017, the Company converted into a joint stock company with limited liability under the Company Law of the PRC. The net assets of the Company as of the conversion base date, including paid-in capital, other reserves and accumulated losses, amounting to RMB222,000,000 were converted into 129,878,265 ordinary shares at RMB1.00 each. The excess of net assets converted over nominal value of the ordinary shares was credited to the Company's share premium.
- (b) In May 2017, the Company issued 26,566,009 shares in total with par value RMB1.00 each to Future Industry Investment Fund (Limited Partnership) (先進製造產業投資基金(有限合夥)), LAV Bio III Investment (Hong Kong) Co., Limited, Shenzhen Dachen Chuanglian Equity Investment Fund Partnership (Limited Partnership) (深圳市達晨創聯股權投資基金合夥企業(有限合夥)), QM29 Limited, Suzhou Litai Venture Capital Investment Center (Limited Partnership) (蘇州禮泰創業投資中心(有限合夥)), Lilly Asia Ventures III Investment (Hong Kong) Co., Limited, Suzhou Qiming Rongxin Equity Investment Partnership (Limited Partnership) (蘇州啟明融信股權投資合夥企業(有限合夥)), CITIC Securities Investment Co., Ltd. (中信證券投資有限公司), Shanghai Gopher Yaoren Investment Center (Limited Partnership) (上海歌斐鑰韜投資中心(有限合夥)), Shanghai Gopher Hongben Investment Center (Limited Partnership) (上海歌斐鴻本投資中心(有限合夥)), Jinshi Yikang Equity Investment (Hangzhou) Partnership (Limited Partnership) (金石翊康股權投資(杭州)合夥企業(有限合夥)), Shanghai Huiqiu Investment Co., Ltd. (上海慧秋投資有限公司), Tianjin Heyue Guyu Equity Investment Fund Partnership (Limited Partnership) (天津和悅谷雨股權投資基金合夥企業(有限合夥)), Suzhou Zhongxin Chuangxin Investment Management Co., Ltd. (蘇州中鑫創新投資管理有限公司) and Suzhou Industrial Park Qiming Rongchuang Equity Investment Partnership (Limited Partnership) (蘇州工業園區啟明融創股權投資合夥企業(有限合夥)). Total proceeds of RMB450,000,000 were received during the year ended 31 December 2017, with approximately RMB26,566,000 and RMB423,434,000 credited to the Company's share capital and share premium, respectively.
- (c) Pursuant to a share subscription agreement entered into between the Company, Tianjin Qianrui and Tianjin Qianzhi on 28 May 2018, which was later approved by the annual general meeting of the Company held on 28 May 2018, the Company issued 3,299,475 shares to Tianjin Qianrui at a consideration of approximately RMB12,802,000, and issued 1,207,150 shares to Tianjin Qianzhi at a consideration of approximately RMB4,684,000. Upon completion of the share subscription by Tianjin Qianrui and Tianjin Qianzhi, the registered share capital of the Company was increased to RMB 160,951,000 approximately. Tianjin Qianrui and Tianjin Qianzhi were special purpose vehicles to hold the ordinary shares for the Company's employees under the 2018 Employee Share Plan (Note 24).



## 23. PAID-IN CAPITAL AND OTHER RESERVES

	Paid-in capital	Other reserves	Total
	RMB'000	RMB'000	RMB'000
As at 1 January 2016	120,241	141,970	262,211
Capital contribution from shareholders (a)	6,104	45,718	51,822
Capital contribution from shareholders (b)	3,533	26,467	30,000
As at 31 December 2016	129,878	214,155	344,033
Conversion into a joint stock company (Note 22)	(129,878)	(219,650)	(349,528)
As at 31 December 2017	–	(5,495)	(5,495)
Consolidation of special purpose vehicles (Note 24(a))	–	4,454	4,454
As at 31 December 2018	–	(1,041)	(1,041)

## Notes:

- (a) In September 2015, the Company entered into capital contribution agreement with QM29 Limited, LAV Excel (Hong Kong) Co., Ltd, LAV Horizon (Hong Kong) Co., Ltd, Suzhou Litai Venture Capital Investment Center (Limited Partnership) (蘇州禮泰創業投資中心(有限合夥)), Shanghai Huiqiu Investment Co., Ltd. (上海慧秋投資有限公司), Tianjin Heyue Guyu Equity Investment Fund Partnership (Limited Partnership) (天津和悅谷雨股權投資基金合夥企業(有限合夥)) and Liu Jianfa, pursuant to which total capital of RMB172,740,000 was to be injected into the Company with approximately RMB20,345,000 and RMB152,395,000 credited to the Company's paid-in capital and other reserves respectively. During the year ended 31 December 2015, 70% of the total capital was contributed by the shareholders. In May 2016, the remaining 30% of capital contribution was made by the shareholders.
- (b) In June 2016, the Company entered into capital contribution agreement with Jiaxing Huiguang Equity Investment Fund Partnership (Limited Partnership) (嘉興慧光股權投資基金合夥企業(有限合夥)), pursuant to which total capital of RMB30,000,000 was to be injected into the Company with approximately RMB3,533,000 and RMB26,467,000 credited to the Company's paid-in capital and other reserves respectively.

## 24. SHARE-BASED PAYMENT

## (a) Share award schemes

## 2015 Employee Share Plan

On 21 December 2015, shares of the Company was granted to 33 eligible employees (the "Grantees") under the 2015 Employee Share Plan. Under this plan, 3,474,600 shares of RMB1.00 each (equivalent to RMB 3,474,600 paid-in capital before the conversion into a joint stock company) will be vested when the Company successfully completes an initial public offering and the Company's shares get listed on the stock exchange or the Company is acquired by other parties. The Grantees paid approximately RMB440,000 in total at an exercise price of RMB0.1265 each share to Tianjin Qianyi on the grant date. If an employee ceases to be employed by the Company within this period, the awarded shares will be forfeited.

The 2015 Employee Share Plan is administered by Tianjin Qianyi. This special purpose vehicle is consolidated in accordance with Note 1. 3,474,600 shares of RMB1.00 each were acquired by Tianjin Qianyi from Xuefeng Yu, Tao Zhu, Dongxu Qiu and Helen Huihua Mao in total at a price of RMB0.1265 per share on 27 August 2015, and are held under the 2015 Employee Share Plan until such time as they are vested. Forfeited shares are purchased back by Tao Zhu at the price that the employees initially purchased, and are reallocated in the subsequent grants at the discretion of the Company.

**2018 Employee Share Plan**

On 28 May 2018, the Company issued 3,299,475 and 1,207,150 shares of RMB1.00 each to Tianjin Qianrui and Tianjin Qianzhi, respectively, at a price of RMB3.88 per share under the 2018 Employee Share Plan. Under the plan, 42 eligible employees were granted 3,299,475 shares issued to Tianjin Qianrui, of which 52,590 shares were granted to Tao Zhu and were vested immediately. The rest 3,246,885 shares were granted to the other 41 eligible employees and be vested when such eligible employees complete a five-year service period. Three eligible employees were granted 1,207,150 shares issued to Tianjin Qianzhi, of which 19 shares were granted to Tao Zhu and were vested immediately. The rest 1,207,131 shares were granted to the rest two employees. 60% of these 1,207,131 shares could be vested when such eligible employees complete a three-year service period, and the remaining 40% could vest when such eligible employees complete a five-year service period. Approximately RMB17,486,000 were paid by those employees to Tianjin Qianrui and Tianjin Qianzhi in total on the grant date. If an eligible employee ceases the employment by the Company within this period, the awarded shares will be forfeited.

The 2018 Employee Share Plan is administered by Tianjin Qianrui and Tianjin Qianzhi. These special purpose vehicles are consolidated in accordance with Note 1. Forfeited shares are purchased back by Tao Zhu, or a person designated by Tao Zhu, at the price that the employees initially purchased, and if applicable, plus 7% per annum interest.

Set out below are the movement in the number of awarded shares under the Employee Share Plans:

	Year ended 31 December		
	2016	2017	2018
At the beginning of year	3,474,600	3,387,648	2,931,941
Granted	—	—	4,506,625
Forfeited	(86,952)	(455,707)	—
At the end of year	3,387,648	2,931,941	7,438,566
Shares not yet granted at the end of year	86,952	542,659	542,659

The Group has applied discounted cash flow method to determine the fair value of the underlying shares of RMB8.49 per share under the 2015 Employee Share Plan, and RMB21.84 per share under the 2018 Employee Share Plan on the respective grant dates. Best estimates of key assumptions, such as discount rate and projections of future performance, are required to be determined by management. Key assumptions used in determining the fair value of shares under the Employee Share Plans are as follows:

	2015 Employee Share Plan	2018 Employee Share Plan
<b>Key assumptions</b>		
Discount rate	21.50%	17.00%
Risk-free interest rate	2.00%	2.84%
Volatility	42.00%	43.00%
Dividend yield	Nil	Nil

## (b) Expenses arising from share-based payment transactions

	Year ended 31 December		
	2016	2017	2018
	RMB'000	RMB'000	RMB'000
Share award schemes issued under the Employee Share Plans	10,000	7,309	15,780

As at 31 December 2016, 2017 and 2018, the accumulated expenses arising from share-based payment transactions amounting to RMB10,000,000, RMB17,309,000 and RMB33,089,000, respectively are recognised in the share-based compensation reserve.

## 25. DEFERRED INCOME TAX

The analysis of deferred income tax assets and liabilities in the consolidated balance sheet are as follows:

	As at 31 December		
	2016	2017	2018
	RMB'000	RMB'000	RMB'000
Deferred income tax assets:			
– To be recovered within 12 months	–	95	–
Deferred income tax liabilities:			
– To be settled within 12 months	–	(95)	–
Deferred income tax assets/(liabilities) – net	–	–	–

The movement in deferred income tax assets and liabilities is as follows:

Deferred tax assets	Tax losses
	RMB'000
Balance at 1 January 2016 and 2017	–
Credited to the statement of comprehensive income	95
Balance at 31 December 2017	95
Balance at 1 January 2018	95
Charged to the statement of comprehensive income	(95)
Balance at 31 December 2018	–

	Fair value gain on financial assets at fair value through profit or loss
	<i>RMB'000</i>
<b>Deferred tax liabilities</b>	
Balance at 1 January 2016 and 2017	–
Charged to the statement of comprehensive income	(95)
Balance at 31 December 2017	(95)
Balance at 1 January 2018	(95)
Credited to the statement of comprehensive income	95
Balance at 31 December 2018	–

**(a) Deferred tax assets not recognised**

The Group has not recognised any deferred tax assets in respect of the following items:

	<b>As at 31 December</b>		
	<b>2016</b>	<b>2017</b>	<b>2018</b>
	<i>RMB'000</i>	<i>RMB'000</i>	<i>RMB'000</i>
Deductible losses	115,019	171,206	345,648
Deductible temporary differences	43,292	71,212	85,082
	158,311	242,418	430,730

As at 31 December 2016, 2017 and 2018, the Group has tax loss carry forwards approximately RMB115,019,000, RMB171,206,000 and RMB345,648,000, respectively, available for offset against future profits. No deferred tax asset has been recognised in respect of the tax losses due to the unpredictability of future profit streams.

**(b) Deductible losses that are not recognised as deferred tax assets will be expired as follows:**

	<b>As at 31 December</b>		
	<b>2016</b>	<b>2017</b>	<b>2018</b>
	<i>RMB'000</i>	<i>RMB'000</i>	<i>RMB'000</i>
2017	5,551	–	–
2018	14,200	13,564	–
2019	17,292	17,292	–
2020	33,743	33,743	–
2021	44,233	44,233	–
2022	–	62,374	–
2024	–	–	17,292
2025	–	–	33,743
2026	–	–	44,233
2027	–	–	62,374
2028	–	–	188,006
	115,019	171,206	345,648

Pursuant to the notice on extending the expired years of unused tax losses of High-tech Enterprises and Small and Medium-sized Technological Enterprises (《關於延長高新技術企業和科技型中小企業虧損結轉年限的通知》(Caishui [2018] No. 76)) issued in July 2018, which retrospectively effect from 1 January 2018, the Group adjusted the expiration period of the unused tax losses.

## 26. FINANCIAL INSTRUMENTS BY CATEGORY

	As at 31 December		
	2016	2017	2018
	RMB'000	RMB'000	RMB'000
<b>Financial assets at amortised cost</b>			
Cash and cash equivalents ( <i>Note 21</i> )	52,548	18,247	57,381
Restricted cash ( <i>Note 21</i> )	–	1,740	–
Wealth management products with fixed rates ( <i>Note 20</i> )	94,000	270,000	140,000
Other receivables excluding non-financial assets ( <i>Note 18</i> )	1,617	3,050	3,429
	<u>148,165</u>	<u>293,037</u>	<u>200,810</u>
<b>Financial assets at fair value through profit or loss</b>			
Wealth management products with floating rates ( <i>Note 19</i> )	–	132,636	–
	<u>–</u>	<u>132,636</u>	<u>–</u>
<b>Financial liabilities at amortised cost</b>			
Trade payables ( <i>Note 29</i> )	734	1,879	6,651
Other payables excluding non-financial liabilities ( <i>Note 30</i> )	19,233	99,751	85,460
Borrowings ( <i>Note 27</i> )	69,329	108,333	150,000
	<u>89,296</u>	<u>209,963</u>	<u>242,111</u>

## 27. BORROWINGS

	As at 31 December		
	2016	2017	2018
	RMB'000	RMB'000	RMB'000
<b>Non-current</b>			
Borrowings from banks – secured	69,329	108,333	150,000
	<u>69,329</u>	<u>108,333</u>	<u>150,000</u>
<b>Maturity of borrowings</b>			
Between 2 and 5 years	60,000	108,333	150,000
Over 5 years	9,329	–	–
	<u>69,329</u>	<u>108,333</u>	<u>150,000</u>

As at 31 December 2016, 2017 and 2018, bank borrowings were denominated in RMB, bearing interest at rates equivalent to 105%-120% of rates announced by the People's Bank of China, and were secured against certain of the Group's property, plant and equipment (Note 14) and land use rights (Note 15), and were guaranteed by the Group's related party (Note 34(b)).

Guarantee provided by Tianjin Kun Jian Biopharmaceutical Co., Ltd. on the Group's borrowings has been released in July 2018.

The fair value of borrowings approximated their carrying amounts as at 31 December 2016, 2017 and 2018 as the borrowings carried interests which were benchmarked against rates announced by the People's Bank of China from time to time.

## 28. DEFERRED INCOME

	As at 31 December		
	2016	2017	2018
	RMB'000	RMB'000	RMB'000
<b>Government grants</b>			
Asset-related grants (a)	15,820	38,671	37,772
Reimbursement of future expenses (b)	1,661	853	626
	17,481	39,524	38,398
Less: current portion	(2,466)	(1,752)	(1,525)
Non-current portion	15,015	37,772	36,873

*Note:*

- (a) The asset-related grants are the subsidies received from the government for the purpose of compensation for purchase of the Group's property, plant and equipment and land use rights.
- (b) Government grants as reimbursement of future expenses are subsidies received for compensating the Group's future research and development activities with regards to certain projects.

The amount of government grants that credited to the statement of comprehensive income is disclosed in Note 7.

## 29. TRADE PAYABLES

The aging analysis of trade payables based on invoice date is as follows:

	As at 31 December		
	2016	2017	2018
	RMB'000	RMB'000	RMB'000
Within 1 year	734	1,767	6,539
Between 1 and 2 years	–	112	–
Between 2 and 3 years	–	–	112
	734	1,879	6,651

The carrying amounts of trade payables are denominated in RMB, and approximate their fair values due to short-term maturities.

## 30. OTHER PAYABLES AND ACCRUALS

	As at 31 December		
	2016	2017	2018
	RMB'000	RMB'000	RMB'000
Other payables to suppliers of property, plant and equipment	12,763	91,304	65,546
Payroll and welfare payable	4,860	9,107	12,816
Accrued listing expenses	–	–	8,940
Rental payable	5,737	5,989	6,431
Consulting fees	–	–	1,045
Interest payable	100	170	239
Accrued taxes other than income tax	63	438	233
Utilities	250	1,024	190
Deposits from suppliers	78	81	6
Others	305	1,183	3,063
	<u>24,156</u>	<u>109,296</u>	<u>98,509</u>

## 31. CASH USED IN OPERATION

	Year ended 31 December		
	2016	2017	2018
	RMB'000	RMB'000	RMB'000
Loss before income tax	(49,851)	(64,450)	(138,281)
Adjustments for:			
– Depreciation	5,769	8,074	11,476
– Amortisation	633	415	543
– Investment income on wealth management products	(1,678)	(11,810)	(12,438)
– Losses/(gains) on disposal of property, plant and equipment	–	2	(105)
– Gains from asset related government grants	(809)	(804)	(899)
– Finance (income)/costs – net	(2,835)	654	(297)
– Share-based compensation expenses	10,000	7,309	15,780
	<u></u>	<u></u>	<u></u>
Operating cash flows before movements in working capital	(38,771)	(60,610)	(124,221)
Changes in working capital			
– Inventories	–	(1,624)	(6,870)
– Trade receivables	1,941	–	–
– Other receivables and prepayments	937	(772)	(7,956)
– Trade payables	374	1,145	4,772
– Other payables and accruals	1,377	6,140	10,659
– Deferred income of reimbursement of future expenses	(391)	(808)	(227)
	<u></u>	<u></u>	<u></u>
Cash used in operations	<u>(34,533)</u>	<u>(56,529)</u>	<u>(123,843)</u>

Net debt reconciliation is shown below:

	<b>Borrowings</b>	<b>Interest expenses</b>	<b>Total debts</b>
	<i>RMB'000</i>	<i>RMB'000</i>	<i>RMB'000</i>
At 1 January 2016	–	–	–
Cash flows	69,329	(336)	68,993
Non-cash movements	–	436	436
At 31 December 2016	69,329	100	69,429
Cash flows	39,004	(4,632)	34,372
Non-cash movements	–	4,702	4,702
At 31 December 2017	108,333	170	108,503
Cash flows	41,667	(7,593)	34,074
Non-cash movements	–	7,662	7,662
At 31 December 2018	150,000	239	150,239

### 32. STATEMENTS OF CHANGES IN EQUITY OF THE COMPANY

	<i>Note</i>	<b>Paid-in capital</b>	<b>Other reserves</b>	<b>Share capital</b>	<b>Share premium</b>	<b>Share-based compensation reserves</b>	<b>Accumulated losses</b>	<b>Total equity</b>
		<i>RMB'000</i>	<i>RMB'000</i>	<i>RMB'000</i>	<i>RMB'000</i>	<i>RMB'000</i>	<i>RMB'000</i>	<i>RMB'000</i>
<b>Balance at</b>								
<b>1 January 2016</b>		120,241	138,495	–	–	–	(86,229)	172,507
<b>Comprehensive income</b>								
– Loss for the year		–	–	–	–	–	(49,851)	(49,851)
<b>Transaction with owners</b>								
– Contributions from shareholders	23	9,637	72,185	–	–	–	–	81,822
– Share-based payments	24(b)	–	–	–	–	10,000	–	10,000
<b>Balance at</b>								
<b>31 December 2016</b>		129,878	210,680	–	–	10,000	(136,080)	214,478



# APPENDIX I

# ACCOUNTANT'S REPORT

		Paid-in capital	Other reserves	Share capital	Share premium	Share-based compensation reserves	Accumulated losses	Total equity
	Note	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
<b>Balance at</b>								
<b>1 January 2017</b>		129,878	210,680	–	–	10,000	(136,080)	214,478
<b>Comprehensive income</b>								
– Loss for the year		–	–	–	–	–	(64,450)	(64,450)
<b>Transaction with owners</b>								
– Conversion into a joint stock company	22	(129,878)	(219,650)	129,878	92,122	–	127,528	–
– Issuance of shares	22	–	–	26,566	423,434	–	–	450,000
– Share-based payments	24(b)	–	–	–	–	7,309	–	7,309
<b>Balance at</b>								
<b>31 December 2017</b>		–	(8,970)	156,444	515,556	17,309	(73,002)	607,337
<b>Balance at</b>								
<b>1 January 2018</b>		–	(8,970)	156,444	515,556	17,309	(73,002)	607,337
<b>Comprehensive income</b>								
– Loss for the year		–	–	–	–	–	(138,270)	(138,270)
<b>Transaction with owners</b>								
– Issuance of shares	22	–	–	4,507	12,979	–	–	17,486
– Share-based payments	24(b)	–	–	–	–	15,780	–	15,780
<b>Balance at</b>								
<b>31 December 2018</b>		–	(8,970)	160,951	528,535	33,089	(211,272)	502,333

**33. COMMITMENTS****(a) Capital commitments**

The following is the details of capital expenditure contracted for but not provided in the Historical Financial Information.

	As at 31 December		
	2016	2017	2018
	<i>RMB'000</i>	<i>RMB'000</i>	<i>RMB'000</i>
Contracted but not provided for – Property, plant and equipment	233,815	75,331	14,239

**(b) Operating lease commitments**

The Group leases various offices and warehouses under non-cancellable operating lease agreements. The future minimum lease payable under non-cancellable operating leases contracted for at the balance sheet dates but not recognised as liabilities, are as follows:

	As at 31 December		
	2016	2017	2018
	<i>RMB'000</i>	<i>RMB'000</i>	<i>RMB'000</i>
No later than 1 year	4,050	4,028	7,756
Later than 1 year but no later than 5 years	15,833	11,805	18,097
	19,883	15,833	25,853

**34. RELATED PARTY TRANSACTIONS**

Parties are considered to be related if one party has the ability, directly or indirectly, control the other party or exercise significant influence over the other party in making financial and operation decisions. Parties are also considered to be related if they are subject to common control. Members of key management and their close family member of the Group are also considered as related parties.

- (a) The following companies and persons are related parties of the Group during the years ended 31 December 2016, 2017 and 2018:

Names of the related parties	Nature of relationship
Tianjin Kun Jian Biopharmaceutical Co., Ltd. 天津坤健生物製藥有限公司	Under common control of Xuefeng Yu, Helen Huihua Mao, Dongxu Qiu and Tao Zhu

**(b) Significant transactions with related parties**

During the Track Record Period, the Group has the following significant transactions with related parties:

**(i) Purchases of services**

	Year ended 31 December		
	2016	2017	2018
	RMB'000	RMB'000	RMB'000
Tianjin Kun Jian Biopharmaceutical Co., Ltd.	90	–	–

**(ii) Purchases of equipment and furniture**

	Year ended 31 December		
	2016	2017	2018
	RMB'000	RMB'000	RMB'000
Tianjin Kun Jian Biopharmaceutical Co., Ltd.	–	2,114	–

**(iii) Rendering of services**

	Year ended 31 December		
	2016	2017	2018
	RMB'000	RMB'000	RMB'000
Tianjin Kun Jian Biopharmaceutical Co., Ltd.	100	–	–

**(iv) Guarantee provided by related parties**

	Year ended 31 December		
	2016	2017	2018
	RMB'000	RMB'000	RMB'000
Tianjin Kun Jian Biopharmaceutical Co., Ltd.	69,329	108,333	–

## (c) Key management compensation

Key management includes directors and senior management. The compensation paid or payable to key management for employee services is shown below:

	Year ended 31 December		
	2016	2017	2018
	RMB'000	RMB'000	RMB'000
Salaries	1,310	1,326	3,586
Discretionary bonuses	108	600	1,711
Share-based compensation expenses (Note 24)	770	770	1,539
Others	161	218	468
	<u>2,349</u>	<u>2,914</u>	<u>7,304</u>

## 35. BENEFITS AND INTERESTS OF DIRECTORS

## (a) Directors' and chief executive's emoluments

The remuneration of each director and the chief executive for the year ended 31 December 2016, 2017 and 2018 is set out below:

Name	Emoluments paid or receivable in respect of a person's services as a director				
	Fees	Salaries	Discretionary bonuses	Share-based compensation expenses	Social security costs, housing benefits and other employee benefits
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
For the year ended					
31 December 2016					
Name of executive directors					
Xuefeng Yu*	–	360	–	–	15
Tao Zhu	–	300	–	–	39
Dongxu Qiu	–	60	–	–	12
Helen Huihua Mao	–	300	–	–	12
Name of non-executive directors					
Qiang Xu	–	–	–	–	–
Liang Lin	–	–	–	–	–
Nisa Leung	–	–	–	–	–
	<u>–</u>	<u>1,020</u>	<u>–</u>	<u>–</u>	<u>78</u>
					<u>1,098</u>

## Emoluments paid or receivable in respect of a person's services as a director

Name	Fees	Salaries	Discretionary bonuses	Share-based compensation expenses	Social security costs, housing benefits and other employee benefits	Total
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
For the year ended 31 December 2017						
Name of executive directors						
Xuefeng Yu*	–	360	100	–	13	473
Tao Zhu	–	300	100	–	90	490
Dongxu Qiu	–	60	100	–	13	173
Helen Huihua Mao	–	300	100	–	13	413
Name of non-executive directors						
Qiang Xu	–	–	–	–	–	–
Liang Lin	–	–	–	–	–	–
Nisa Leung	–	–	–	–	–	–
Zheng Yin	–	–	–	–	–	–
	–	1,020	400	–	129	1,549
For the year ended 31 December 2018						
Name of executive directors						
Xuefeng Yu*	–	878	450	–	71	1,399
Tao Zhu	–	863	450	945	154	2,412
Dongxu Qiu	–	488	270	–	61	819
Helen Huihua Mao ( <i>note</i> )	–	338	–	–	69	407
Shoubai Chao ( <i>note</i> )	–	525	301	–	7	833
Name of non-executive directors						
Qiang Xu	–	–	–	–	–	–
Liang Lin	–	–	–	–	–	–
Nisa Leung	–	–	–	–	–	–
Zheng Yin	–	–	–	–	–	–
	–	3,092	1,471	945	362	5,870

\* Chief executive of the Company

*Note:* On 22 June 2018, Shoubai Chao was appointed as the Company's executive director. On the same day, Helen Huihua Mao resigned from the position as executive director.

On 22 June 2018, Shiu Kwan Danny WAI, Zhu XIN, Luis BARRETO and Pierre Armand MORGON were appointed as independent non-executive directors of the Company with the appointment to take effect upon the Listing. No emoluments were paid to the independent non-executive directors during the Track Record Period.

(b) No directors waived or agreed to waive any emoluments during the Track Record Period. No emoluments were paid to directors as an inducement to join or upon joining the Group or as compensation for loss of office during the Track Record Period.

(c) **Directors' material interests in transactions, arrangements or contracts**

No significant transactions, arrangements and contracts in relation to the Group's business to which the Group was a party and in which a director of the Company had a material interest, whether directly or indirectly, subsisted at the end of the year or at any time during the years ended 31 December 2016, 2017 and 2018.

**36. SUBSEQUENT EVENTS**

There are no material subsequent events undertaken by the Group after 31 December 2018.

**37. DIVIDENDS**

No dividend has been paid or declared by the Company during the years ended 31 December 2016, 2017 and 2018.

**III. SUBSEQUENT FINANCIAL STATEMENTS**

No audited financial statements have been prepared by the Company or any of the companies now comprising the Group in respect of any period subsequent to 31 December 2018 and up to the date of this report. No dividend or distribution has been declared or made by the Company or any of the companies now comprising the Group in respect of any period subsequent to 31 December 2018.

*The information set forth in this Appendix II does not form part of the “Accountant’s Report” received from the Company’s reporting accountant, PricewaterhouseCoopers, Certified Public Accountants, Hong Kong, as set forth in Appendix I to this prospectus, and is included herein for illustrative purpose only.*

*The unaudited pro forma financial information should be read in conjunction with the section headed “Financial Information” in this prospectus and the “Accountant’s Report” set forth in Appendix I to this prospectus.*

#### **A. UNAUDITED PRO FORMA STATEMENT OF ADJUSTED NET TANGIBLE ASSETS**

The following is an illustrative statement of the unaudited pro forma adjusted consolidated net tangible assets which has been prepared in accordance with Rule 4.29 of the Listing Rules for the purpose of illustrating the effect of the Global Offering as if it had taken place on 31 December 2018 and based on the consolidated net tangible assets attributable to the owners of the Company as at 31 December 2018 as shown in the Accountant’s Report, the text of which is set out in Appendix I to this prospectus, and adjusted as described below.

This unaudited pro forma adjusted consolidated net tangible assets has been prepared for illustrative purposes only and, because of its hypothetical nature, it may not give a true picture of the financial position of the Group had the Global Offering been completed as at 31 December 2018 or at any future date.

	<b>Audited consolidated net tangible assets attributable to the owners of the Company as at 31 December 2018</b>	<b>Estimated net proceeds from the Global Offering</b>	<b>Unaudited pro forma adjusted consolidated net tangible assets attributable to the owners of the Company</b>	<b>Unaudited pro forma adjusted consolidated net tangible assets per share</b>	
	<i>Note 1</i>	<i>Note 2</i>		<i>Note 3</i>	<i>Note 4</i>
	<i>RMB’000</i>	<i>RMB’000</i>	<i>RMB’000</i>	<i>RMB</i>	<i>HK\$</i>
Based on the Offer					
Price of HK\$21.00 per share	469,997	948,899	1,418,896	6.50	7.62
Based on the Offer					
Price of HK\$22.00 per share	469,997	995,656	1,465,653	6.72	7.88

*Notes:*

- (1) The audited consolidated net tangible assets attributable to the owners of the Company as at 31 December 2018 is extracted from the Accountant's Report set forth in Appendix I to the prospectus, which is based on the unaudited consolidated net assets attributable to the owners of the Company as at 31 December 2018 of RMB502,317,000 with an adjustment for the intangible assets attributable to the owners of the Company as at 31 December 2018 of RMB32,320,000.
- (2) The estimated net proceeds from the Global Offering are based on the indicative Offer Price of HK\$21.00 and HK\$22.00 per share after deduction of the estimated underwriting fees and other related expenses payable by the Company, and takes no account of any shares which may be issued upon the exercise of the Over-allotment Option.
- (3) The unaudited pro forma adjusted consolidated net tangible assets per share are determined after the adjustments as described in note 2 above and on the basis that 218,199,499 shares are in issue, assuming the Global Offering had been completed on 31 December 2018 but takes no account of any shares which may fall to be issued upon the exercise of the Over-allotment Option.
- (4) For the purpose of this unaudited pro forma adjusted net tangible assets, the balance stated in Renminbi is converted into Hong Kong dollars at a rate of HK\$1.00 to RMB0.85297. No representation is made that Renminbi amounts have been, could have been or may be converted to Hong Kong dollars, or vice versa, at that rate.
- (5) No adjustments have been made to the unaudited pro forma adjusted consolidated net tangible assets to reflect any trading results or other transactions of the Group entered into subsequent to 31 December 2018.



**B. REPORT ON UNAUDITED PRO FORMA FINANCIAL INFORMATION**

*The following is the text of a report received from PricewaterhouseCoopers, Certified Public Accountants, Hong Kong, for the purpose of incorporation in this prospectus.*



羅兵咸永道

**INDEPENDENT REPORTING ACCOUNTANT'S ASSURANCE REPORT ON THE  
COMPILATION OF UNAUDITED PRO FORMA FINANCIAL INFORMATION****To the Directors of CanSino Biologics Inc.**

We have completed our assurance engagement to report on the compilation of unaudited pro forma financial information of CanSino Biologics Inc. (the "Company") and its subsidiaries (collectively the "Group") by the directors for illustrative purposes only. The unaudited pro forma financial information consists of the unaudited pro forma statement of adjusted net tangible assets of the Group as at 31 December 2018, and related notes (the "Unaudited Pro Forma Financial Information") as set out on pages II-1 to II-2 of the Company's prospectus dated 18 March 2019, in connection with the proposed initial public offering of the shares of the Company. The applicable criteria on the basis of which the directors have compiled the Unaudited Pro Forma Financial Information are described on pages II-1 to II-2.

The Unaudited Pro Forma Financial Information has been compiled by the directors to illustrate the impact of the proposed initial public offering on the Group's financial position as at 31 December 2018 as if the proposed initial public offering had taken place at 31 December 2018. As part of this process, information about the Group's financial position has been extracted by the directors from the Group's financial information for the year ended 31 December 2018, on which an accountant's report has been published.

**Directors' Responsibility for the Unaudited Pro Forma Financial Information**

The directors are responsible for compiling the Unaudited Pro Forma Financial Information in accordance with paragraph 4.29 of the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited (the "Listing Rules") and with reference to Accounting Guideline 7 "Preparation of Pro Forma Financial Information for Inclusion in Investment Circulars" ("AG 7") issued by the Hong Kong Institute of Certified Public Accountants ("HKICPA").

**Our Independence and Quality Control**

We have complied with the independence and other ethical requirement of the Code of Ethics for Professional Accountants issued by the HKICPA, which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour.

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T: +852 2289 8888, F: +852 2810 9888, www.pwchk.com*

Our firm applies Hong Kong Standard on Quality Control 1 issued by the HKICPA and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

**Reporting Accountant's Responsibilities**

Our responsibility is to express an opinion, as required by paragraph 4.29(7) of the Listing Rules, on the Unaudited Pro Forma Financial Information and to report our opinion to you. We do not accept any responsibility for any reports previously given by us on any financial information used in the compilation of the Unaudited Pro Forma Financial Information beyond that owed to those to whom those reports were addressed by us at the dates of their issue.

We conducted our engagement in accordance with Hong Kong Standard on Assurance Engagements 3420 "Assurance Engagements to Report on the Compilation of Pro Forma Financial Information Included in a Prospectus", issued by the HKICPA. This standard requires that the reporting accountant plans and performs procedures to obtain reasonable assurance about whether the directors have compiled the Unaudited Pro Forma Financial Information in accordance with paragraph 4.29 of the Listing Rules and with reference to AG 7 issued by the HKICPA.

For purposes of this engagement, we are not responsible for updating or reissuing any reports or opinions on any historical financial information used in compiling the Unaudited Pro Forma Financial Information, nor have we, in the course of this engagement, performed an audit or review of the financial information used in compiling the Unaudited Pro Forma Financial Information.

The purpose of unaudited pro forma financial information included in a prospectus is solely to illustrate the impact of a significant event or transaction on unadjusted financial information of the entity as if the event had occurred or the transaction had been undertaken at an earlier date selected for purposes of the illustration. Accordingly, we do not provide any assurance that the actual outcome of the proposed initial public offering at 31 December 2018 would have been as presented.

A reasonable assurance engagement to report on whether the unaudited pro forma financial information has been properly compiled on the basis of the applicable criteria involves performing procedures to assess whether the applicable criteria used by the directors in the compilation of the unaudited pro forma financial information provide a reasonable basis for presenting the significant effects directly attributable to the event or transaction, and to obtain sufficient appropriate evidence about whether:

- The related pro forma adjustments give appropriate effect to those criteria; and
- The unaudited pro forma financial information reflects the proper application of those adjustments to the unadjusted financial information.

The procedures selected depend on the reporting accountant's judgment, having regard to the reporting accountant's understanding of the nature of the company, the event or transaction in respect of which the unaudited pro forma financial information has been compiled, and other relevant engagement circumstances.

The engagement also involves evaluating the overall presentation of the unaudited pro forma financial information.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Our work has not been carried out in accordance with auditing standards or other standards and practices generally accepted in the United States of America or auditing standards of the Public Company Accounting Oversight Board (United States) and accordingly should not be relied upon as if it had been carried out in accordance with those standards and practices.

### **Opinion**

In our opinion:

- (a) the Unaudited Pro Forma Financial Information has been properly compiled by the directors of the Company on the basis stated;
- (b) such basis is consistent with the accounting policies of the Group; and
- (c) the adjustments are appropriate for the purposes of the Unaudited Pro Forma Financial Information as disclosed pursuant to paragraph 4.29(1) of the Listing Rules.

**PricewaterhouseCoopers**

Certified Public Accountants

Hong Kong, 18 March 2019



March 18, 2019

CanSino Biologics Inc.  
401-420, 4th Floor  
Biomedical Park, 185 South Ave.,  
TEDA West District, Tianjin, PRC

Dear Sirs,

In accordance with your instructions to value a property (the “Property” or the “property interests”) of CanSino Biologics Inc. (the “Company” its subsidiaries and its jointly controlled entities (hereinafter together referred to as the “Group”) located at Tianjin in the People’s Republic of China (the “PRC”). We confirm that we have carried out inspection of the Property, made relevant enquiries and obtained such further information as we consider necessary for providing the market value of such property interests as of December 31, 2018 (referred to as the “Valuation Date”).

This letter which forms part of our valuation report explains the basis and methodology of valuation, and clarifies our assumptions made, title investigation of property and the limiting conditions.

No third party shall have the right of reliance on this valuation report and neither receipt nor possession of this valuation report by any third party shall create any express or implied third-party beneficiary rights.

## **BASIS OF VALUATION**

Our valuation is our opinion of the **Market Value** which is defined in accordance with the HKIS Valuation Standards of the Hong Kong Institute of Surveyors to mean “the estimated amount for which an asset or liability should exchange on the Valuation Date between a willing buyer and a willing seller in an arm’s-length transaction after proper marketing and where the parties had each acted knowledgeably, prudently and without compulsion”.

**Market Value** is understood as the value of an asset and liability estimated without regard to costs of sale or purchase (or transaction) and without offset for any associated taxes or potential taxes.

This estimate specifically excludes an estimated price inflated or deflated by special considerations or concessions granted by anyone associated with the sale, or any element of special value.

**VALUATION METHODOLOGY**

The valuation has been based on the depreciated replacement cost of the building and structures (referred to as the “Building”) which is defined as the gross replacement cost of the Buildings, from which appropriate deductions may then be made to allow for the age, condition, economic/external and functional obsolescence and environmental factors etc. All of these might result in the existing Buildings being worth less to the undertaking in occupation than would a new replacement. For the land parcels, we have made reference to the similar transaction in the locality.

**TITLE INVESTIGATION**

We have been provided with copies of documents in relation to the title of the property interests. However, due to the current registration system of the PRC, no investigation has been made for the legal title or any liabilities attached to the Property. We have also not scrutinized the original documents to verify ownership or to verify any amendments which may not appear on the copies handed to us.

We have relied to a considerable extent on the information provided by the Company and reviewed the PRC legal opinion provided by the PRC legal adviser, Tian Yuan Law Firm, on the PRC Law regarding the Property located in the PRC.

All legal documents disclosed in this letter and valuation certificate are for reference only and no responsibility is assumed for any legal matters concerning the legal title to the property interests set out in this letter and valuation certificates.

**ASSUMPTIONS**

Our valuation has been made on the assumption that the owner sells the property interests on the market in its existing state without the benefit of deferred terms contracts, leaseback, joint ventures, management agreements or any similar arrangement which would serve to affect the value of the property interests.

No allowance has been in our valuation for any charges, mortgages or amounts owing on the Property valued nor for any expenses or taxation which may be incurred in effecting a sale. Unless otherwise stated, all the property interests are free from encumbrances, restrictions and outgoings of an onerous nature which could affect its value.

We have assumed that the owner of the property interests have free and uninterrupted rights to use, lease or mortgage the property interests. We have also assumed that the property interests are freely disposable and transferable.

We have valued the property interests on the assumption that it is developed in accordance with the development proposals or building plans given to us. We have assumed that all consents, approvals and licences from relevant government authorities for the buildings and

structures erected or to be erected thereon have been granted. Also, we have assumed that unless otherwise stated, all buildings and structures erected on the land parcels are held by the owner or permitted to be occupied by the owner.

It is assumed that all applicable zoning, land use regulations and other restrictions have been complied with unless a non-conformity has been stated, defined and considered in the valuation certificate. Further, it is assumed that the utilization of the land and improvements is within the boundaries of the property interests described and that no encroachment or trespass exists unless noted in the valuation certificate.

Other special assumptions of the Property, if any, have been stated in the footnotes of the valuation certificate.

### **LIMITING CONDITIONS**

We have relied to a considerable extent on the information provided by the Company and have accepted advice given to us by the Company on such matters as statutory notices, easements, tenure, occupancy, site areas and floor areas and all other relevant matters. Dimensions and areas included in the valuation certificates are based on information contained in the documents provided to us and are only approximations.

Having examined all relevant documentation, we have had no reason to doubt the truth and accuracy of the information provided to us. We have assumed that no material factors have been omitted from the information to reach an informed view, and have no reason to suspect that any material information has been withheld.

We have not carried out detailed site measurements to verify the land areas or building areas in respect of the property but have assumed that the areas provided to us are correct. All dimensions and areas are approximations only.

Our Ms. Kathy Li has inspected the Property included in the attached valuation certificate on May 23, 2018. No structural survey has been made and we are therefore unable to report as to whether the Property is or is not free of rot, infestation or any other structural defects. No tests were carried out on any of the services. No site investigations have been carried out to determine the suitability of the ground conditions or the services for the site of the Property.

No environmental impact study has been ordered or made. Full compliance with applicable national, provincial and local environmental regulations and laws is assumed unless otherwise stated, defined, and considered in the report. It is also assumed that all required licenses, consents, or other legislative, or administrative authority from any local, provincial, or national government or private entity or organization either have been or can be obtained or renewed for any use which the report covers.

**REMARKS**

In valuing the property interests, we have complied with all the requirements contained in Paragraph 34(2) and (3) of Schedule 3 of the Companies (Winding Up and Miscellaneous Provisions) Ordinance (Cap. 32), Chapter 5 and Practice Note 12 to the Rules Governing the Listing of Securities issued by The Stock Exchange of Hong Kong Limited and The HKIS Valuation Standards (2017 Edition) published by the Hong Kong Institute of Surveyors.

We hereby certify that we have neither present nor prospective interest in the Property or the value reported.

This valuation report is issued subject to our Assumptions and Limiting Conditions.

Unless otherwise stated, all monetary amount stated in this report is in Renminbi (RMB).

We enclose herewith our valuation certificate.

Yours faithfully,

For and on behalf of

**D&P China (HK) Limited**

**Calvin K.C. Chan**

*CFA, MRICS, MHKIS, MCIREA, RPS (GP)*  
*Director*

*Notes:*

*Mr. Calvin K. C. Chan, who is a Chartered Surveyor and Registered Professional Surveyor, has over 20 years' experience in valuation of properties in the PRC. Mr. Chan has been admitted to the Hong Kong Institute of Surveyors' approved List of Property Valuers to undertake valuation for incorporation or reference in Listing Particulars and Circulars and valuation in connection with that takeovers and mergers.*

*Ms. Kathy Li, who is a Chinese Registered Real Estate Appraiser has over 20 years' experience in valuation of properties in the PRC.*

## SUMMARY OF VALUE

Property	Market Value in Existing State as at December 31, 2018
	<i>(RMB)</i>
An industrial complex erected on land parcel (Lot No. 1201104000020350000) in West Zone of Tianjin Economic and Technological Development Area (TEDA), Tianjin, the PRC 中國天津市經濟技術開發區西區之土地 (宗地號1201104000020350000) 及其上之廠房	277,013,000
<b>Total:</b>	277,013,000



## VALUATION CERTIFICATE

Property	Description and tenure	Particulars of occupancy	Market Value in existing state as of December 31, 2018
An industrial complex erected on land parcel (Lot No. 1201104000020350000) in West Zone of Tianjin Economic and Technological Development Area (TEDA), Tianjin, the PRC	The Property comprises an industrial land parcel with a site area of 65,001.8 square metres, together with several industrial buildings to be erected thereon.	Basic construction works was completed, the Property is currently pending for official production as of the Valuation Date.	RMB277,013,000
中國天津市經濟技術開發區西區之土地 (宗地號 1201104000020350000) 及其上之廠房	As advised, the buildings have a total gross floor area of about 38,716.21 square metres were completed in 2018.  The land use term of the Property was granted for a term from March 18, 2015 to March 17, 2065 for industrial use.		

*Notes:*

- Pursuant to a State-owned Land Use Rights Certificate (國有土地使用證), Jin (2017) Kai Fa Qu Bu Dong Chan Quan Di No. 1004122, registered under Tianjin Municipal Bureau of Land Resource and Housing Administration (天津市國土資源和房屋管理局) dated April 20, 2017, the land use rights of the Property are held by CanSino Biologics Inc. (“康希諾生物股份公司”) (“CanSino Biologics”) for a term from March 18, 2015 to March 17, 2065 for industrial use.
- Pursuant to three Construction Works Commencement Permit (建築工程施工許可證), Nos. 1211192016060601111, 1211192017031501111 and 1211192018071101111, issued by Tianjin Economic and Technological Development Zone (Nangang Industrial Zone) Management Committee (天津經濟技術開發區(南港工業區)管理委員會) dated June 6, 2016, March 15, 2017 and July 11, 2018, the commencement of the construction works of the Property have been approved.
- Pursuant to two Construction Project Completion Acceptance Record Notice (建設工程竣工驗收備案通知書), Nos. Jian Bei J2018-046 and J2018-047, issued by Tianjin Economic and Technological Development Zone Construction Engineering Management Centre (天津經濟技術開發區建設工程管理中心) both dated June 27, 2018, the construction works of the Property have been completed.
- Pursuant to the Real Property Ownership Certificate (不動產權証), Jin (2018) Kai Fa Qu Bu Dong Chan Quan Di No. 1006903, issued by Tianjin City Administration of State Land and Housing Management Bureau (天津市國土資源和房屋管理局) dated August 24, 2018, the building ownership of the Property have been granted to CanSino Biologics.

5. Pursuant to three Tangible Assets Registration Proofs (不動產登記證明), the Property has been pledged to Shanghai Pudong Development Bank – Tianjin Branch (上海浦東發展銀行股份有限公司天津分行) for a total amount of about RMB150,000,000 from August 22, 2016 to August 22, 2022. The salient details have been tabulated below:

No.	Document No.	Registration Date	Amount (RMB)	Borrowing Term
1	Jin (2016) Kai Fa Qu Bu Dong Chan Zheng Ming Di Nos. 3002712	September 30, 2016	70,000,000	August 22, 2016 to August 22, 2022
2	Jin (2016) Kai Fa Qu Bu Dong Chan Zheng Ming Di Nos. 3003479	December 12, 2016	40,600,000	August 22, 2016 to August 22, 2022
3	Jin (2017) Kai Fa Qu Bu Dong Chan Zheng Ming Di Nos. 3001344	September 29, 2017	39,400,000	August 22, 2016 to August 22, 2022
<b>Total</b>			<b>150,000,000</b>	

6. The construction works of the Property is basically completed, As advised, as of the Valuation Date, the total cost has been paid for the construction works is about RMB231,754,343, while the outstanding payment is about RMB40,357,808. However, in the course of our valuation, our opinion of market value reflect the existing physically status of the Property as of the Valuation Date.
7. The PRC legal opinion states, inter alias, that:
- CanSino Biologics possesses the property title of the land use rights and building ownership of the Property and, subject to the pledge, is entitled to possess, use, profit, dispose of (including but not limited to transfer, lease, mortgage) or other legal means to deal with the land use rights and ownership of the Property by other lawful means in accordance with PRC laws within the purpose, scope and the term of the rights.
  - CanSino Biologics has obtained the permit, filing and appropriate consent of the Tianjin Economic and Technological Development Zone Administrative Committee for the current construction in progress works of the Property.
8. Our valuation has been made on the following basis and analysis:

In determining the market value of this property, we have adopted the general accepted cost approach for specific purpose-built port property. For land portion, we have made reference to both industrial land comparables recently transacted in the proximity. The unit rates of these land comparables are ranging from RMB316 per square metre to RMB404 per square metre. With regards to the differences in the characteristics of the land parcels of the Property and land comparables, we have made appropriate adjustments. The average unite rate of the land of the Property adopted is about RMB364 per square metre.

For the Buildings and site improvement, costs of replacement new have been estimated based on the cost data of industrial property searched in the market, while we have considered the original costs of some specific structures like berth and stacking area. The depreciation is based on the observed conditions, with consideration given to the age and economic life of the improvements and remaining land tenure. The average unit rate of the buildings adopted is about RMB6,500 per square metre.

## 1. TAXATION OF SECURITY HOLDERS

The taxation of income and capital gains of holders of H Shares is subject to the laws and practices of the PRC and of jurisdictions in which holders of H Shares are resident or otherwise subject to tax. The following summary of certain relevant taxation provisions is based on current laws and practices, is subject to change and does not constitute legal or tax advice. The discussion does not deal with all possible tax consequences relating to an investment in the H Shares, nor does it take into account the specific circumstances of any particular investor, some of which may be subject to special regulation. Accordingly, you should consult your own tax adviser regarding the tax consequences of an investment in the H Shares. The discussion is based upon laws and relevant interpretations in effect as of the Latest Practicable Date, all of which are subject to change and may have retrospective effect.

This discussion does not address any aspects of PRC or Hong Kong taxation other than income tax, capital tax, stamp duty and estate duty. Prospective investors are urged to consult their financial advisers regarding the PRC, Hong Kong and other tax consequences of owning and disposing of H Shares.

### A. The PRC Taxation

#### *Taxation on Dividends*

##### *Individual Investors*

With respect to non-resident individual holders, their gains realised through the transfer of properties are normally subject to PRC individual income tax at a rate of 20%. However, according to the Circular of the Ministry of Finance and the State Administration of Taxation on Issues Concerning Individual Income Tax Policies (《財政部、國家稅務總局關於個人所得稅若干政策問題的通知》), the income received by individual foreigners from dividends and bonuses of a foreign-invested enterprise is exempt from individual income tax for the time being. On February 3, 2013, the State Council approved and promulgated the Notice of Suggestions to Deepen the Reform of System of Income Distribution (《國務院轉批發展改革委等部門關於深化收入分配制度改革若干意見的通知》). On February 8, 2013, the General Office of the State Council promulgated the Circular Concerning Allocation of Key Works to Deepen the Reform of System of Income Distribution (《國務院辦公廳關於深化收入分配制度改革重點工作分工的通知》). According to these two documents, the PRC government is planning to cancel foreign individuals' tax exemption for dividends obtained from foreign-invested enterprises, and the Ministry of Finance and the State Administration of Taxation should be responsible for making and implementing details of such plan. However, relevant implementation rules or regulations have not been promulgated by the Ministry of Finance and the State Administration of Taxation.

*Enterprise Investors*

In accordance with the Enterprise Income Tax Law of the People's Republic of China (《中華人民共和國企業所得稅法》) (the "EIT Law") effective as of January 1, 2008 and amended on February 24, 2017, and the Implementation Rules for the Enterprise Income Tax Law of the People's Republic of China (《中華人民共和國企業所得稅法實施條例》) effective as of January 1, 2008, a non-resident enterprise is generally subject to a 10% enterprise income tax on PRC-sourced income (including dividends received from a PRC resident enterprise that issues shares in Hong Kong), if such non-resident enterprise does not have an establishment or place in the PRC or has an establishment or place in the PRC but the PRC-sourced income is not connected with such establishment or place in the PRC. The withholding tax may be reduced pursuant to applicable treaties for the avoidance of double taxation. Such withholding tax for non-resident enterprises are deducted at source, where the payer of the income are required to withhold the income tax from the amount to be paid to the non-resident enterprise when such payment is made or due.

The Circular on Issues Relating to the Withholding of Enterprise Income Tax by PRC Resident Enterprises on Dividends Paid to Overseas Non-PRC Resident Enterprise Shareholders of H Shares (Guo Shui Han [2008] No. 897) (《關於中國居民企業向境外H股非居民企業股東派發股息代扣代繳企業所得稅有關問題的通知》(國稅函[2008]897號)) which was issued by the SAT on November 6, 2008, further clarified that a PRC-resident enterprise must withhold corporate income tax at a rate of 10% on dividends paid to non-PRC resident enterprise shareholders of H Shares with respect to the dividends of 2008 and onwards. In addition, the Response to Questions on Levying Enterprise Income Tax on Dividends Derived by Non-resident Enterprise from Listed Shares such as B-shares (Guo Shui Han [2009] No. 394) (《關於非居民企業取得B股等股票股息徵收企業所得稅問題的批覆》國稅函[2009]394號) which was issued by the SAT on July 24, 2009, further provides that any PRC-resident enterprise that is listed on overseas stock exchanges must withhold enterprise income tax at a rate of 10% on dividends of 2008 and onwards that it distributes to non-resident enterprises. Such tax rates may be further modified pursuant to the tax treaty or agreement that China has concluded with a relevant jurisdiction, where applicable.

Pursuant to the Arrangement between the Mainland and the Hong Kong Special Administrative Region for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with respect to Taxes on Income (《內地和香港特別行政區關於對所得避免雙重徵稅和防止偷漏稅的安排》) issued on August 21, 2006, the PRC Government may levy taxes on the dividends paid by a PRC company to Hong Kong residents (including natural persons and legal entities) in an amount not exceeding 10% of total dividends payable by the PRC company. If a Hong Kong resident directly holds 25% or more of the equity interest in a PRC company, then such tax shall not exceed 5% of the total dividends payable by the PRC company. Pursuant to the Fourth Protocol of the State Administration of Taxation to the Arrangement between the Mainland and Hong Kong Special Administrative Region for the Avoidance of Double Taxation and Prevention of Fiscal Evasion with respect to Taxes on Income (《國家稅務總局關於〈內地和香港特別行政區關於對所得避免雙重徵稅和防止偷漏稅的安排〉第四議定書》) effective as of December 29, 2015, the abovementioned provisions are not applicable to any arrangement which is primarily made for the purpose of obtaining the above taxation benefits.

*Tax Treaties*

Investors who are not PRC residents and reside in countries and regions which have entered into avoidance of double taxation treaties with the PRC are entitled to a reduction of the withholding taxes imposed on the dividends received from PRC companies. The PRC has entered into arrangements for the avoidance of double taxation with a number of countries and regions including but not limited to Hong Kong, Macau, Australia, Canada, France, Germany, Japan, Malaysia, the Netherlands, Singapore, the United Kingdom and the United States. Non-PRC resident enterprises entitled to preferential tax rates in accordance with the relevant income tax treaties or arrangements are required to apply to the PRC tax authorities for a refund of the withholding tax in excess of the agreed tax rate, and the refund payment is subject to approval by the PRC tax authorities.

*Taxation on Share Transfer**Individual Investors*

According to the Individual Income Tax Law of the People's Republic of China (《中華人民共和國個人所得稅法》) and its implementation provisions, gains realized on the sale of equity interests in PRC resident enterprises are subject to the income tax at a rate of 20%.

Under the Circular Declaring that Individual Income Tax Continues to Be Exempted over Individual Income from Transfer of Shares (Cai Shui Zi [1998] No. 61) (《關於個人轉讓股票所得繼續暫免徵收個人所得稅的通知》((財稅字[1998]61號)) issued by the MOF and the SAT, from January 1, 1997, gains of individuals from the transfer of shares of listed enterprises continues to be exempted from individual income tax. According to the latest IIT Law (amended on June 30, 2011) and its latest implementing rules (amended on July 19, 2011), the SAT has not explicitly stated whether it will continue to exempt individuals from income tax on income derived from the transfer of listed shares.

However, on December 31, 2009, the MOF, the SAT and the CSRC jointly issued the Circular on Relevant Issues Concerning the Collection of Individual Income Tax over the Income Received by Individuals from Transfer of Listed Shares Subject to Sales Limitation (Cai Shui [2009] No. 167) (《關於個人轉讓上市公司限售股所得徵收個人所得稅有關問題的通知》(財稅[2009]167號)), which provides that individuals' income from transferring listed shares on certain domestic exchanges shall continued to be exempted from individual income tax, except for certain shares which are subject to sales limitations as defined in the Supplementary Circular on Relevant Issues Concerning the Collection of Individual Income Tax over the Income Received by Individuals from Transfer of Listed Shares Subject to Sales Limitation (Cai Shui [2010] No. 70) (《關於個人轉讓上市公司限售股所得徵收個人所得稅有關問題的補充通知》(財稅[2010]70號)). As of the Latest Practicable Date, the aforesaid provision has not expressly provided that individual income tax shall be collected from non-PRC resident individuals on the transfer of shares of PRC resident enterprises listed on overseas stock exchanges. To our knowledge, in practice, the PRC tax authorities have not collected income tax from non-PRC resident individuals on gains from the transfer of shares of PRC resident enterprises listed on overseas stock exchanges.

*Enterprise Investors*

In accordance with the EIT Law and its implementation provisions, a non-resident enterprise is generally subject to a 10% enterprise income tax on PRC-sourced income, including gains derived from the disposal of equity interests in a PRC resident enterprise, if it does not have an establishment or place in the PRC or has an establishment or place in the PRC but the PRC-sourced income is not connected with such establishment or place. Such income tax for non-resident enterprises are deducted at source, where the payer of the income are required to withhold the income tax from the amount to be paid to the non-resident enterprise when such payment is made or due. The withholding tax may be reduced or eliminated pursuant to applicable treaties or agreements on avoidance of double taxation.

*PRC stamp duty*

Under the Provisional Regulations of the PRC Concerning Stamp Duty (《中華人民共和國印花稅暫行條例》) amended on January 8, 2011 and the Rules for Implementation of Provisional Regulations of the PRC Concerning Stamp Duty (《中華人民共和國印花稅暫行條例施行細則》) amended on November 5, 2004, PRC stamp duty is imposed on documents that are legally binding in the PRC and governed by the PRC laws. Therefore, PRC stamp duty does not apply to acquisitions or dispositions of H shares outside PRC.

*Estate Duty*

As of the Latest Practicable Date, no estate duty has been levied in China under the PRC laws.

**B. Hong Kong Taxation***Taxation on Dividends*

No tax is payable in Hong Kong in respect of dividends paid by our Company.

*Profits Tax*

Hong Kong profits tax will not be payable by any Shareholders (other than Shareholders carrying on a trade, profession or business in Hong Kong and holding the Shares for trading purposes) on any capital gains made on the sale or other disposal of the Shares. Shareholders should take advice from their own professional advisers as to their particular tax position.

*Stamp Duty*

Hong Kong stamp duty will be charged on the sale and purchase of Shares at the current rate of 0.2% of the consideration for, or (if greater) the value of, the Shares being sold or purchased, whether or not the sale or purchase is on or off the Stock Exchange. The Shareholder selling the Shares and the purchaser will each be liable for one-half of the amount of Hong Kong stamp duty payable upon such transfer. In addition, a fixed duty of HK\$5 is currently payable on any instrument of transfer of Shares.

***Estate Duty***

Hong Kong estate duty was abolished effective from February 11, 2006. No Hong Kong estate duty is payable by Shareholders in relation to the Shares owned by them upon death.

**2. PRINCIPAL TAXATION OF OUR COMPANY IN THE PRC**

Please refer to “Regulatory Overview.”

**3. TAXATION OF OUR COMPANY IN HONG KONG****Profits Tax**

Our Company will be subject to Hong Kong profits tax in respect of profits arising in or derived from Hong Kong at the current rate of 16.5%. Dividend income derived by our Company from its subsidiaries will be excluded from Hong Kong profits tax.

**4. FOREIGN EXCHANGE**

The lawful currency of the PRC is the Renminbi, which is currently subject to foreign exchange control and is not freely convertible into foreign exchange. The SAFE, under the authority of the PBOC, is responsible for administration of all matters relating to foreign exchange, including the enforcement of foreign exchange control regulations.

On January 29, 1996, the State Council promulgated the Regulations on Foreign Exchange Control of the PRC (《中華人民共和國外匯管理條例》) (the “Foreign Exchange Control Regulations”) which became effective on April 1, 1996. The Foreign Exchange Control Regulations classifies all international payments and transfers into current account items and capital account items. Most of the current account items are no longer subject to the SAFE’s approval, while capital account items still are. The Foreign Exchange Control Regulations were subsequently amended on January 14, 1997 and August 5, 2008. The latest amended Foreign Exchange Control Regulations clearly states that the State will not impose any restriction on international payments and transfers under the current account items.

On June 20, 1996, the PBOC promulgated the Provisional Regulations for the Administration of Settlement, Sale and Payment of Foreign Exchange (《結匯、售匯及付匯管理規定》) (the “Settlement Regulations”) which became effective on July 1, 1996. The Settlement Regulations abolished all other restrictions on convertibility of foreign exchange under current account items, while retaining the existing restrictions on foreign exchange transactions under capital account items.



According to the Announcement on Improving the Reform of the Renminbi Exchange Rate Formation Mechanism (the PBOC Announcement [2005] No. 16) (《關於完善人民幣匯率形成機制改革的公告》(中國人民銀行公告[2005]第16號)), issued by the PBOC on July 21, 2005, from the same date, the PRC began to implement a managed floating exchange rate system in which the exchange rate would be determined based on market supply and demand and adjusted with reference to a basket of currencies. The Renminbi exchange rate was no longer pegged to the U.S. dollar. The PBOC would publish the closing price of foreign currencies such as the U.S. dollar against Renminbi in the interbank foreign exchange market after the closing of the market on each working day, which will be used as the central parity for the transactions of such foreign currency against Renminbi exchange rate on the following working day.

Starting from January 4, 2006, the PBOC introduced over-the-counter transactions into the interbank spot foreign exchange market for the purpose of improving the formation mechanism of the central parity of Renminbi exchange rates, and the practice of matching was kept at the same time. In addition to the above, the PBOC introduced the market-maker rule to provide liquidity to the foreign exchange market. On July 1, 2014, the PBOC further improved the formation mechanism of the RMB exchange rate by authorizing the China Foreign Exchange Trading Center to make inquiries with the market-makers before the interbank foreign exchange market opens every day for their offered quotations which are used as samples to calculate the central parity of the RMB against the USD of the current day, which shall be finally decided on the weighted average of the prices of all market makers after excluding the highest and lowest quotations, and announce it at 9:15 a.m. on each working day.

On August 11, 2015, the PBOC announced to improve the central parity quotations of RMB against the U.S. dollar by authorizing market-makers to provide central parity quotations to the China Foreign Exchange Trading Center with reference to the interbank foreign exchange market closing rate of the previous day, the supply and demand for foreign exchange as well as changes in major international currency exchange rates.

On August 5, 2008, the State Council promulgated the revised Foreign Exchange Control Regulations (the “Revised Foreign Exchange Control Regulations”), which have made substantial changes to the foreign exchange supervision system of the PRC. First, the Revised Foreign Exchange Control Regulations have adopted an approach of balancing the inflow and outflow of foreign exchange. Foreign exchange income received overseas can be repatriated or deposited overseas, and foreign exchange and foreign exchange settlement funds under the capital account are required to be used only for purposes as approved by the competent authorities and foreign exchange administrative authorities. Second, the Revised Foreign Exchange Control Regulations have improved the mechanism for determining the RMB exchange rate based on market supply and demand. Third, the Revised Foreign Exchange Control Regulations have enhanced the monitoring of cross-border foreign currency fund flows. In the event that revenues and costs in connection with international transactions suffer or may suffer a material misbalance, or the national economy encounters or may encounter a severe crisis, the State may adopt necessary safeguard or control measures. Fourth, the Revised Foreign Exchange Control Regulations have enhanced the supervision and administration of foreign exchange transactions and grant extensive authorities to the SAFE to enhance its supervisory and administrative powers.



All Foreign exchange income generated from current account transactions of the PRC enterprises may be either retained or sold to financial institutions engaging in the settlement or sale of foreign exchange. Foreign exchange income from loans issued by organizations outside the territory or from the issuance of bonds and shares (for example, foreign exchange income received by us from the sale of shares overseas) is not required to be sold to designated foreign exchange banks and can be deposited into foreign exchange accounts at the designated foreign exchange banks. PRC enterprises (including foreign-invested enterprises) which need foreign exchange for transactions relating to current account items may, without the approval of the SAFE, effect exchange and payment from their foreign exchange accounts at the designated foreign exchange banks with the support of valid receipts and proof. Foreign-invested enterprises which need foreign exchange for the distribution of profits to their shareholders and PRC enterprises which, in accordance with regulations, are required to pay dividends to their shareholders in foreign exchange (such as our Company) may, on the strength of resolutions of the board of directors or the shareholders' meeting approving the distribution of profits, effect exchange and payment from their foreign exchange accounts or convert and pay dividends at the designated foreign exchange banks.

On October 23, 2014, the State Council promulgated the Decisions on Matters including Canceling and Adjusting a Batch of Administrative Approval Items (Guo Fa [2014] No. 50) (《關於取消和調整一批行政審批項目等事項的決定》(國發[2014]50號)), which canceled the approval requirement by the SAFE and its branches for the repatriation and settlement of foreign exchange of overseas-raised funds through overseas listing.

On December 26, 2014, the SAFE issued the Notice on Relevant Issues Concerning the Administration of Foreign Exchange for Overseas Listing (《關於境外上市外匯管理有關問題的通知》), pursuant to which a domestic issuer shall, within 15 business days of the end of its initial public offering overseas, register the overseas listing with the SAFE's local branch at the place of its incorporation; and the proceeds from an overseas listing may be remitted to the domestic account or deposited in an overseas account, but the use of the proceeds shall be consistent with the content of the prospectus and other disclosure documents. The conversion of the proceeds deposit in a domestic account into Renminbi is subject to approval of the SAFE. According to the Notice of the State Administration of Foreign Exchange on Reforming and Standardizing Capital Account Foreign Exchange Settlement Administration Policies (《國家外匯管理局關於改革和規範資本項目結匯管理政策的通知》) promulgated by the SAFE on June 9, 2016, the settlement of foreign exchange income of capital items (including proceeds from overseas listing) can be made at banks based on the actual operation needs of domestic enterprises. The settlement ratio for foreign exchange income of capital items of domestic enterprises is temporarily 100% and is subject to adjustment by the SAFE according to the balance of international payments.

**1. PRC LAWS AND REGULATIONS**

This Appendix contains a summary of laws and regulations on companies and securities in the PRC, certain major differences between the PRC Company Law and Companies (Winding Up and Miscellaneous Provisions) Ordinance and the Companies Ordinance as well as the additional regulatory provisions of the Stock Exchange on joint stock limited companies of the PRC. The principal objective of this summary is to provide potential investors with an overview of the principal laws and regulations applicable to us. This summary is with no intention to include all the information which may be important to the potential investors. For discussion of laws and regulations specifically governing the business of the Company, please see section entitled “Regulatory Overview” in this document.

**PRC LEGAL SYSTEM**

The PRC legal system is based on the Constitution of the PRC (《中華人民共和國憲法》) (the “Constitution”) and is made up of written laws, administrative regulations, local regulations, separate regulations, autonomous regulations, rules and regulations of departments, rules and regulations of local governments, international treaties of which the PRC government is a signatory, and other regulatory documents. Court verdicts do not constitute binding precedents. However, they may be used as judicial reference and guidance.

According to the Constitution and the Legislation Law of the PRC (《中華人民共和國立法法》) (the “Legislation Law”), the NPC and the Standing Committee of the NPC are empowered to exercise the legislative power of the State. The NPC has the power to formulate and amend basic laws governing civil and criminal matters, state organs and other matters. The Standing Committee of the NPC is empowered to formulate and amend laws other than those required to be enacted by the NPC and to supplement and amend any parts of laws enacted by the NPC during the adjournment of the NPC, provided that such supplements and amendments are not in conflict with the basic principles of such laws.

The State Council is the highest organ of the PRC administration and has the power to formulate administrative regulations based on the Constitution and laws.

The people’s congresses of provinces, autonomous regions and municipalities and their respective standing committees may formulate local regulations based on the specific circumstances and actual requirements of their own respective administrative areas, provided that such local regulations do not contravene any provision of the Constitution, laws or administrative regulations.

The ministries and commissions of the State Council, PBOC, the State Audit Administration as well as the other organs endowed with administrative functions directly under the State Council may, in accordance with the laws as well as the administrative regulations, decisions and orders of the State Council and within the limits of their power, formulate rules.

The people's congresses of larger cities and their respective standing committees may formulate local regulations based on the specific circumstances and actual requirements of such cities, which will become enforceable after being reported to and approved by the standing committees of the people's congresses of the relevant provinces or autonomous regions but such local regulations shall conform with the Constitution, laws, administrative regulations, and the relevant local regulations of the relevant provinces or autonomous regions. People's congresses of national autonomous areas have the power to enact autonomous regulations and separate regulations in light of the political, economic and cultural characteristics of the nationality (nationalities) in the areas concerned.

The people's governments of the provinces, autonomous regions, and municipalities directly under the central government and the comparatively larger cities may enact rules, in accordance with laws, administrative regulations and the local regulations of their respective provinces, autonomous regions or municipalities.

The Constitution has supreme legal authority and no laws, administrative regulations, local regulations, autonomous regulations or separate regulations may contravene the Constitution. The authority of laws is greater than that of administrative regulations, local regulations and rules. The authority of administrative regulations is greater than that of local regulations and rules. The authority of local regulations is greater than that of the rules of the local governments at or below the corresponding level. The authority of the rules enacted by the people's governments of the provinces or autonomous regions is greater than that of the rules enacted by the people's governments of the comparatively larger cities within the administrative areas of the provinces and the autonomous regions.

The NPC has the power to alter or annul any inappropriate laws enacted by its Standing Committee, and to annul any autonomous regulations or separate regulations which have been approved by its Standing Committee but which contravene the Constitution or the Legislation Law. The Standing Committee of the NPC has the power to annul any administrative regulations that contravene the Constitution and laws, to annul any local regulations that contravene the Constitution, laws or administrative regulations, and to annul any autonomous regulations or local regulations which have been approved by the standing committees of the people's congresses of the relevant provinces, autonomous regions or municipalities directly under the central government, but which contravene the Constitution and the Legislation Law. The State Council has the power to alter or annul any inappropriate ministerial rules and rules of local governments. The people's congresses of provinces, autonomous regions or municipalities directly under the central government have the power to alter or annul any inappropriate local regulations enacted or approved by their respective standing committees. The people's governments of provinces and autonomous regions have the power to alter or annul any inappropriate rules enacted by the people's governments at a lower level.

According to the Constitution and the Legislation Law, the power to interpret laws is vested in the Standing Committee of the NPC. According to the Decision of the Standing Committee of the NPC Regarding the Strengthening of Interpretation of Laws (《全國人民代表大會常務委員會關於加強法律解釋工作的決議》) passed on June 10, 1981, the Supreme People's Court of the PRC (the "Supreme People's Court") has the power to give general interpretation on questions involving the specific application of laws and decrees in court trials. The State Council and its ministries and commissions are also vested with the power to give interpretation of the administrative regulations and department rules which they have promulgated. At the regional level, the power to give interpretations of the local laws and regulations as well as administrative rules is vested in the regional legislative and administrative organs which promulgate such laws, regulations and rules.

### **PRC JUDICIAL SYSTEM**

Under the Constitution and the PRC Law on the Organization of the People's Courts (《中華人民共和國法院組織法》), the PRC judicial system is made up of the Supreme People's Court, the local people's courts, military courts and other special people's courts.

The local people's courts are comprised of the primary people's courts, the intermediate people's courts and the higher people's courts. The primary people's courts are organized into civil, criminal, administrative, supervision and enforcement divisions. The intermediate people's courts are organized into divisions similar to those of the primary people's courts, and are entitled to organize other courts as needed such as the intellectual property division.

The higher level people's courts supervise the primary and intermediate people's courts. The people's procuratorates also have the right to exercise legal supervision over the civil proceedings of people's courts of the same level and lower levels. The Supreme People's Court is the highest judicial body in the PRC. It supervises the judicial administration of the people's courts at all levels.

The people's courts apply a two-tier appellate system. A party may appeal against a judgment or order of a local people's court to the people's court at the next higher level. Second judgments or orders given at the next higher level are final. First judgments or orders of the Supreme People's Court are also final. However, if the Supreme People's Court or a people's court at a higher level finds an error in a judgment or an order which has been given in any people's court at a lower level, or the presiding judge of a people's court finds an error in a judgment which has been given in the court over which he presides, the case may then be retried according to the judicial supervision procedures.

The PRC Civil Procedure Law (《中華人民共和國民事訴訟法》) (the “Civil Procedure Law”), which was adopted in 1991 and amended in 2007, 2012 and 2017, sets forth the criteria for instituting a civil action, the jurisdiction of the people’s courts, the procedures to be followed for conducting a civil action and the procedures for enforcement of a civil judgment or order. All parties to a civil action conducted within the PRC must comply with the Civil Procedure Law. Generally, a civil case is initially heard by a local court of the municipality or province in which the defendant resides. The parties to a contract may, by express agreement, select a judicial court where civil actions may be brought, provided that the judicial court is either the plaintiff’s or the defendant’s domicile, the place of execution or implementation of the contract or the place of the object of the action, provided that the provisions of this law regarding the level of jurisdiction and exclusive jurisdiction shall not be violated.

A foreign national or enterprise generally has the same litigation rights and obligations as a citizen or legal person of the PRC. If a foreign country’s judicial system limits the litigation rights of PRC citizens and enterprises, the PRC courts may apply the same limitations to the citizens and enterprises of that foreign country within the PRC. If any party to a civil action refuses to comply with a judgment or ruling made by a people’s court or an award made by an arbitration panel in the PRC, the other party may apply to the people’s court for the enforcement of the same. There are time limits of two years imposed on the right to apply for such enforcement. If a person fails to satisfy a judgment made by the court within the stipulated time, the court will, upon application by either party, enforce the judgment in accordance with the law.

A party seeking to enforce a judgment or ruling of a people’s court against a party who is not personally or whose property is not within the PRC may apply to a foreign court with jurisdiction over the case for recognition and enforcement of the judgment or ruling. A foreign judgment or ruling may also be recognized and enforced by the people’s court according to PRC enforcement procedures if the PRC has entered into or acceded to an international treaty with the relevant foreign country, which provides for such recognition and enforcement, or if the judgment or ruling satisfies the court’s examination according to the principle of reciprocity, unless the people’s court finds that the recognition or enforcement of such judgment or ruling will result in a violation of the basic legal principles of the PRC, its sovereignty or security or against social and public interest.

**THE COMPANY LAW, SPECIAL REGULATIONS AND MANDATORY PROVISIONS**

A joint stock limited company which was incorporated in the PRC and seeking a listing on the Stock Exchange is mainly subject to the following three laws and regulations in the PRC:

- The PRC Company Law which was promulgated by the Standing Committee of the NPC on December 29, 1993, came into effect on July 1, 1994, revised on December 25, 1999, August 28, 2004, October 27, 2005 and December 28, 2013 respectively and the latest revision of which was implemented on September 3, 2016;
- The Special Regulations of the State Council on Share Offering and Listing Overseas by Joint-Stock Limited Liability Companies (the “Special Regulations”) which were promulgated by the State Council on August 4, 1994 pursuant to Articles 85 and 155 of the PRC Company Law in force at that time, and were applicable, to the overseas share subscription and listing of joint stock limited companies; and
- The Mandatory Provisions of Articles of Association of Companies Listing Overseas (the “Mandatory Provisions”) which were issued jointly by the former Securities Commission of the State Council and the former State Economic Restructuring Commission on August 27, 1994, stating the mandatory provisions which must be incorporated into the articles of association of a joint stock limited company seeking an overseas listing. As such, the Mandatory Provisions are set out in the Articles of Association of the Company, the summary of which is set out in the section entitled “Appendix VI – Summary of the Articles of Association” in this document.

Set out below is a summary of the major provisions of the PRC Company Law, the Special Regulations and the Mandatory Provisions applicable to the Company.

**General**

A joint stock limited company refers to an enterprise legal person incorporated under the PRC Company Law with its registered capital divided into shares of equal par value. The liability of its shareholders is limited to the amount of shares held by them and the company is liable to its creditors for an amount equal to the total value of its assets.

A state-owned enterprise (“SOE”) that is reorganized into a joint stock limited company shall comply with the conditions and requirements specified by laws and administrative regulations for the modification of its operation mechanisms, the disposal and valuation of the company’s assets and liabilities and the establishment of internal management organizations.

A joint stock limited company shall conduct its business in accordance with laws and administrative regulations. It may invest in other limited liability companies and joint stock limited companies and its liabilities with respect to such invested companies are limited to the amount invested. Unless otherwise provided by law, the joint stock limited company may not be a contributor that undertakes joint and several liabilities for the debts of the invested companies.



**Incorporation**

A joint stock limited company may be incorporated by promotion or public subscription.

A joint stock limited company may be incorporated by a minimum of two but not more than 200 promoters, and at least half of the promoters must have residence within the PRC. According to the Special Regulations, SOEs or enterprises with the majority of their assets owned by the PRC government may be restructured into joint stock limited companies which may issue shares to overseas investors in accordance with the relevant regulations. These companies, if incorporated by promotion, may have less than five promoters and may issue new shares once incorporated.

According to the Securities Law of the PRC (《中華人民共和國證券法》) (the “PRC Securities Law”), the total share capital of a company seeking to list its shares on a stock exchange shall be no less than RMB30 million.

The promoters must convene an inaugural meeting within 30 days after the issued shares have been fully paid up, and must give notice to all subscribers or make an announcement of the date of the inaugural meeting 15 days before the meeting. The inaugural meeting may be convened only with the presence of promoters or subscribers representing at least half of the shares in the company. At the inaugural meeting, matters including the adoption of articles of association and the election of members of the board of directors and members of the board of supervisors of the company will be dealt with. All resolutions of the meeting require the approval of subscribers with more than half of the voting rights present at the meeting.

Within 30 days after the conclusion of the inaugural meeting, the board of directors must apply to the registration authority for registration of the establishment of the joint stock limited company. A company is formally established, and has the status of a legal person, after the business license has been issued by the relevant registration authority. Joint stock limited companies established by the subscription method shall file the approval on the offering of shares issued by the securities administration department of the State Council with the company registration authority for record.

A joint stock limited company’s promoters shall be liable for: (i) the payment of all expenses and debts incurred in the incorporation process jointly and severally if the company cannot be incorporated; (ii) the refund of subscription monies to the subscribers, together with interest, at bank rates for a deposit of the same term jointly and severally if the company cannot be incorporated; and (iii) damages suffered by the company as a result of the default of the promoters in the course of incorporation of the company. According to the Interim Provisional Regulations on the Administration of Share Issuance and Trading (《股票發行與交易管理暫行條例》) promulgated by the State Council on April 22, 1993 (which is only applicable to the issuance and trading of shares in the PRC and their related activities), if a company is established by means of public subscription, the promoters of such company are required to sign on this document to ensure that this document does not contain any misrepresentation, serious misleading statements or material omissions, and assume joint and several responsibility for it.

**Share Capital**

The promoters of a company can make capital contributions in cash or in kind, which can be valued in currency and transferable according to law such as intellectual property rights or land use rights based on their appraised value.

If capital contribution is made other than in cash, valuation and verification of the property contributed must be carried out and converted into shares.

A company may issue registered or bearer share. However, shares issued to promoter(s) or legal person(s) shall be in the form of registered share and shall be registered under the name(s) of such promoter(s) or legal person(s) and shall not be registered under a different name or the name of a representative.

The Special Regulations and the Mandatory Provisions provide that shares issued to foreign investors and listed overseas shall be issued in registered form and shall be denominated in Renminbi and subscribed for in foreign currency.

Under the Special Regulations and the Mandatory Provisions, shares issued to foreign investors and investors from the territories of Hong Kong, the Macau and Taiwan and listed overseas are known as overseas listed foreign invested shares, and those shares issued to investors within the PRC other than the territories specified above are known as Domestic Shares.

A company may offer its shares to the public overseas with approval by the securities administration department of the State Council. Specific provisions shall be specifically formulated by the China Securities Regulatory Commission (the “CSRC”). Under the Special Regulations, upon approval of the CSRC, a company may agree, in the underwriting agreement in respect of an issue of overseas listed foreign invested shares, to retain not more than 15% of the aggregate number of overseas listed foreign invested shares proposed to be issued after accounting for the number of underwritten shares.

The share offering price may be equal to or greater than nominal value, but shall not be less than nominal value.

The transfer of shares by shareholders should be conducted via the legally established stock exchange or in accordance with other methods as stipulated by the State Council. Transfer of registered shares by a shareholder must be made by means of an endorsement or by other means stipulated by laws or administrative regulations. Bearer shares are transferred by delivery of the share certificates to the transferee.



Shares held by a promoter of a company shall not be transferred within one year after the date of the company's incorporation. Shares issued by a company prior to the public offer of its shares shall not be transferred within one year from the date of listing of the shares of the company on a stock exchange. Directors, supervisors and senior management of a company shall not transfer over 25% of the shares held by each of them in the company each year during their term of office and shall not transfer any share of the company held by each of them within one year after the listing date. There is no restriction under the PRC Company Law as to the percentage of shareholding a single shareholder may hold in a company.

Transfers of shares may not be entered in the register of shareholders within 20 days before the date of a shareholders' meeting or within five days before the record date set for the purpose of distribution of dividends.

### **Allotment and Issue of Shares**

All issue of shares of a joint stock limited company shall be based on the principles of equality and fairness. The same class of shares must carry equal rights. Shares issued at the same time and within the same class must be issued on the same conditions and at the same price. It may issue shares at par value or at a premium, but it may not issue shares below the par value.

A company shall obtain the approval of the CSRC to offer its shares to the overseas public. Under the Special Regulations, shares issued to foreign investors by joint stock limited companies and listed overseas are known as "overseas listed and foreign invested shares." Shares issued to investors within the PRC by joint stock limited companies, which also issues overseas listed and foreign shares, are known as "domestic shares." Upon approval of the securities regulatory authority of the State Council, a company issuing overseas listed and foreign invested shares in total shares determined by the issuance program may agree with underwriters in the underwriting agreement to retain not more than 15% of the aggregate number of overseas listed and foreign invested shares outside the underwritten amount. The issuance of the retained shares is deemed to be a part of this issuance.

### **Registered Shares**

Under the PRC Company Law, the shareholders may make capital contributions in cash, or alternatively may make capital contributions with such valuated non-monetary property as physical items, intellectual property rights, and land-use rights that may be valued in monetary term and may be transferred in accordance with the law. Pursuant to the Special Regulations, overseas listed and foreign invested shares issued shall be in registered form, denominated in Renminbi and subscribed for in a foreign currency. Domestic shares issued shall also be in registered form.

Under the PRC Company Law, when the company issues shares in registered form, it shall maintain a register of shareholders, stating the following matters:

- the name and domicile of each shareholder;
- the number of shares held by each shareholder;
- the serial numbers of shares held by each shareholder; and
- the date on which each shareholder acquired the shares.

### **Increase of Share Capital**

According to the PRC Company Law, when the joint stock limited company issues new shares, resolutions shall be passed by a shareholders' general meeting, approving the class and number of the new shares, the issue price of the new shares, the commencement and end of the new share issuance and the class and amount of new shares to be issued to existing shareholders. When the company launches a public issuance of new shares with the approval of the securities regulatory authorities of the State Council, it shall publish a document and financial and accounting reports, and prepare the share subscription form. After the new share issuance has been paid up, the change shall be registered with the company registration authorities and an announcement shall be made.

### **Reduction of Share Capital**

A company may reduce its registered capital in accordance with the following procedures prescribed by the PRC Company Law:

- it shall prepare a balance sheet and a property list;
- the reduction of registered capital shall be approved by a shareholders' general meeting;
- it shall inform its creditors of the reduction in capital within 10 days and publish an announcement of the reduction in the newspaper within 30 days after the resolution approving the reduction has been passed;
- creditors may within 30 days after receiving the notice, or within 45 days of the public announcement if no notice has been received, require the company to pay its debts or provide guarantees covering the debts;
- it shall apply to the relevant administration of industry and commerce for the registration of the reduction in registered capital.

**Repurchase of Shares**

According to the PRC Company Law, a joint stock limited company may not purchase its shares other than for one of the following purposes: (i) to reduce its registered capital; (ii) to merge with another company that holds its shares; (iii) to grant its shares to its employees as incentives; and (iv) to purchase its shares from shareholders who are against the resolution regarding the merger or division with other companies at a shareholders' general meeting.

The purchase of shares on the grounds set out in (i) to (iii) above shall require approval by way of a resolution passed by the shareholders' general meeting. Following the purchase of shares in accordance with the foregoing, such shares shall be canceled within 10 days from the date of purchase in the case of (i) above and transferred or canceled within six months in the case of (ii) or (iv) above. Shares acquired in accordance with (iii) above shall not exceed 5% of the total number of the company's issued shares. Such acquisition shall be financed by funds appropriated from the company's profit after taxation, and the shares so acquired shall be transferred to the company's employees within one year.

**Transfer of Shares**

Shares held by shareholders may be transferred in accordance with the relevant laws and regulations. Pursuant to the PRC Company Law, transfer of shares by shareholders shall be carried out at a legally established securities exchange or in other ways stipulated by the State Council. No modifications of registration in the share register caused by transfer of registered shares shall be carried out within 20 days prior to the convening of shareholder's general meeting or five days prior to the base date for determination of dividend distributions. However, where there are separate provisions by law on alternation of registration in the share register of listed companies, those provisions shall prevail. Pursuant to the Mandatory Provisions, no modifications of registration in the share register caused by transfer of shares shall be carried out within 30 days prior to convening of shareholder's general meeting or five days prior to any base date for determination of dividend distributions.

Under the PRC Company law, shares issued prior to the public issuance of shares shall not be transferred within one year from the date of the joint stock limited company's listing on a stock exchange. Directors, supervisors and the senior management shall declare to the company their shareholdings in the company and any changes of such shareholdings. They shall not transfer more than 25% of all the shares they hold in the company annually during their tenure. They shall not transfer the shares they hold within one year from the date on which the company's shares are listed and commenced trading on a stock exchange, nor within six months after their resignation from their positions with the company.

**Shareholders**

Under the PRC Company Law and the Mandatory Provisions, the rights of holders of ordinary shares of a joint stock limited company include:

- the right to attend or appoint a proxy to attend shareholders' general meetings and to vote thereat;
- the right to transfer shares in accordance with laws, administrative regulations and provisions of the articles of association;
- the right to inspect the company's articles of association, share register, counterfoil of company debentures, minutes of shareholder's general meetings, resolutions of meetings of the board of directors, resolutions of meetings of the board of supervisors and financial and accounting reports and to make proposals or enquires on the company's operations;
- the right to bring an action in the people's court to rescind resolutions passed by shareholder's general meetings and board of directors where the articles of association is violated by the above resolutions;
- the right to receive dividends and other types of interest distributed in proportion to the number of shares held;
- in the event of the termination or liquidation of the company, the right to participate in the distribution of residual properties of the company in proportion to the number of shares held; and
- other rights granted by laws, administrative regulations, other regulatory documents and the company's articles of association.

The obligations of a shareholder include the obligation to abide by the Company's articles of association, to pay the subscription moneys in respect of the shares subscribed for and in accordance with the form of making capital contributions, to be liable for the company's debts and liabilities to the extent of the amount of his or her subscribed shares and any other shareholders' obligation specified in the company's articles of association.

**Shareholders' General Meetings**

The shareholders' general meeting is the organ of authority of the company, which exercises its powers in accordance with the PRC Company Law.

Under the PRC Company Law, the shareholders' general meeting exercises the following principal powers:

- to decide on the company's operational policies and investment plans;
- to elect or remove the directors and supervisors (other than the supervisor representative of the employees of the company) and to decide on matters relating to the remuneration of directors and supervisors;
- to examine and approve reports of the board of directors;
- to examine and approve reports of the board of supervisors;
- to examine and approve the company's proposed annual financial budget and final accounts;
- to examine and approve the company's proposals for profit distribution plans and loss recovery plans;
- to decide on any increase or reduction of the company's registered capital;
- to decide on the issue of bonds by the company;
- to decide on issues such as merger, division, dissolution and liquidation of the company and other matters;
- to amend the company's articles of association; and
- other powers as provided for in the articles of association.

Shareholders' annual general meetings are required to be held once every year. Under the Company Law, an extraordinary shareholders' general meeting is required to be held within two months after the occurrence of any of the following:

- the number of directors is less than the number stipulated by the law or less than two thirds of the number specified in the articles of association;
- the aggregate losses of the company which are not recovered reach one-third of the company's total paid-in share capital;
- when shareholders alone or in aggregate holding 10% or more of the company's shares request the convening of an extraordinary general meeting;
- whenever the board of directors deems necessary;
- when the board of supervisors so requests; or
- other circumstances as provided for in the articles of associations.

Under the PRC Company Law, shareholders' general meetings shall be convened by the board of directors, and presided over by the chairman of the board of directors. In the event that the chairman is incapable of performing or does not perform his duties, the meeting shall be presided over by the vice chairman. In the event that the vice chairman is incapable of performing or not performing his duties, a director nominated by more than half of directors shall preside over the meeting.

Where the board of directors is incapable of performing or not performing its duties of convening the shareholders' general meeting, the board of supervisors shall convene and preside over such meeting in a timely manner. In case the board of supervisors fails to convene and preside over such meeting, shareholders alone or in aggregate holding more than 10% of the company's shares for 90 days consecutively may unilaterally convene and preside over such meeting.

Under the PRC Company Law, notice of shareholders' general meeting shall state the time and venue of and matters to be considered at the meeting and shall be given to all shareholders 20 days before the meeting. Notice of extraordinary shareholder's general meetings shall be given to all shareholders 15 days prior to the meeting. Under the Special Regulations and the Mandatory Provisions, such notice shall be delivered to all the registered shareholders 45 days in advance to the meeting, and the matters to be considered and time and venue of the meeting shall be specified. The written reply of shareholders planning to attend the meeting shall be delivered to the company 20 days in advance of the meeting.

There is no specific provision in the PRC Company Law regarding the number of shareholders constituting a quorum in a shareholders' meeting. Pursuant to the Special Regulations and the Mandatory Provisions, shareholder's general meeting may be convened where the number of voting shares held by the shareholders present at the meeting reaches one half or more of the company's total voting shares. If this is not attained, the company shall within five days notify the shareholders again of the matters to be considered and time and venue of the meeting to shareholders in the form of public announcement. The company may convene the shareholders' general meeting after such public announcement. Pursuant to the Mandatory Provisions, modification or abrogation of rights conferred to any class of shareholders shall be passed both by special resolution of shareholders' general meeting and by class meeting convened respectively by shareholders of the affected class.

Pursuant to the Special Regulations, where the company convenes annual shareholder's general meeting, shareholders holding more than 5% of voting shares have a right to submit to the company new proposals in writing, in which the matters falling within the scope of shareholder's general meeting shall be placed in the agenda of the meeting.

Under the PRC Company Law, shareholders present at shareholders' general meeting have one vote for each share they hold, save that shares held by the company are not entitled to any voting rights.

Pursuant to the provisions of the articles of association or a resolution of the shareholders' general meeting, the accumulative voting system may be adopted for the election of directors and supervisors at the shareholders' general meeting. Under the accumulative voting system, each share shall be entitled to vote equivalent to the number of directors or supervisors to be elected at the shareholders' general meeting and shareholders may consolidate their voting rights when casting a vote.

Pursuant to the PRC Company Law and the Mandatory Provisions, resolutions of the shareholders' general meeting shall be adopted by more than half of the voting rights held by the shareholders present at the meeting. However, resolutions of the shareholders' general meeting regarding the following matters shall be adopted by more than two-thirds of the voting rights held by the shareholders present at the meeting: (i) amendments to the articles of association; (ii) the increase or decrease of registered capital; (iii) the issue of any types of shares, warrants or other similar securities; (iv) the issue of debentures; (v) the merger, division, dissolution, liquidation or change in the form of the company; (vi) other matters considered by the shareholders' general meeting, by way of an ordinary resolution, to be of a nature which may have a material impact on the company and should be adopted by a special resolution.

Under the PRC Company Law, meeting minutes shall be prepared in respect of decisions on matters discussed at the shareholders' general meeting. The chairman of the meeting and directors attending the meeting shall sign to endorse such minutes. The minutes shall be kept together with the shareholders' attendance register and the proxy forms.

**Board**

Under the PRC Company Law, a joint stock limited company shall have a board of directors, which shall consist of 5 to 19 members. Members of the board of directors may include representatives of the employees of the company, who shall be democratically elected by the company's staff at the staff representative assembly, general staff meeting or otherwise. The term of a director shall be stipulated in the articles of association, but no term of office shall last for more than three years. Directors may serve consecutive terms if re-elected. A director shall continue to perform his duties in accordance with the laws, administrative regulations and articles of association until a duly re-elected director takes office, if re-election is not conducted in a timely manner upon the expiry of his term of office, or if the resignation of directors results in the number of directors being less than the quorum.

Under the PRC Company Law, the board of directors mainly exercises the following powers:

- to convene the shareholders' general meetings and report on its work to the shareholders' general meetings;
- to implement the resolutions passed in shareholders' general meetings;
- to decide on the company's business plans and investment proposals;
- to formulate the company's proposed annual financial budget and final accounts;
- to formulate the company's profit distribution proposals and loss recovery proposals;
- to formulate proposals for the increase or reduction of the company's registered capital and the issuance of corporate bonds;
- to prepare plans for the merger, division, dissolution and change in the form of the company;
- to formulate the company's basic management system; and
- to exercise any other power under the articles of association.



**Board Meetings**

Under the PRC Company Law, meetings of the board of directors of a joint stock limited company shall be convened at least twice a year. Notice of meeting shall be given to all directors and supervisors 10 days before the meeting. Interim board meetings may be proposed to be convened by shareholders representing more than 10% of voting rights, more than one-third of the directors or the board of supervisors. The chairman shall convene and preside over such meeting within 10 days after receiving such proposal. Meetings of the board of directors shall be held only if half or more of the directors are present. Resolutions of the board of directors shall be passed by more than half of all directors. Each director shall have one vote for resolutions to be approved by the board of directors. Directors shall attend board meetings in person. If a director is unable to attend a board meeting, he may appoint another director by a written power of attorney specifying the scope of the authorization to attend the meeting on his behalf.

If a resolution of the board of directors violates the laws, administrative regulations or the articles of association, and as a result of which the company sustains serious losses, the directors participating in the resolution are liable to compensate the company. However, if it can be proved that a director expressly objected to the resolution when the resolution was voted on, and that such objection was recorded in the minutes of the meeting, such director may be released from that liability.

**Chairman of the Board**

Under the PRC Company Law, the board of directors shall appoint a chairman and may appoint a vice chairman. The chairman and the vice chairman are elected with approval of more than half of all the directors. The chairman shall convene and preside over board meetings and examine the implementation of board resolutions. The vice chairman shall assist the work of the chairman. In the event that the chairman is incapable of performing or not performing his duties, the duties shall be performed by the vice chairman. In the event that the vice chairman is incapable of performing or not performing his duties, a director nominated by more than half of the directors shall perform his duties.

**Qualification of Directors**

The PRC Company Law provides that the following persons may not serve as a director:

- a person who is unable or has limited ability to undertake any civil liabilities;
- a person who has been convicted of an offense of bribery, corruption, embezzlement or misappropriation of property, or the destruction of socialist market economy order; or who has been deprived of his political rights due to his crimes, in each case where less than five years have elapsed since the date of completion of the sentence;

- a person who has been a former director, factory manager or manager of a company or an enterprise that has entered into insolvent liquidation and who was personally liable for the insolvency of such company or enterprise, where less than three years have elapsed since the date of the completion of the bankruptcy and liquidation of the company or enterprise;
- a person who has been a legal representative of a company or an enterprise that has had its business license revoked due to violations of the law and has been ordered to close down by law and the person was personally responsible, where less than three years have elapsed since the date of such revocation; or
- a person who is liable for a relatively large amount of debts that are overdue.

Other circumstances under which a person is disqualified from acting as a director are set out in the Mandatory Provisions.

### **Board of Supervisors**

A joint stock limited company shall have a board of supervisors composed of not less than three members. The board of supervisors is made up of representatives of the shareholders and an appropriate proportion of representatives of the employees of the company. The actual proportion shall be stipulated in the articles of association, provided that the proportion of representatives of the employees shall not be less than one third of the supervisors. Representatives of the employees of the company in the board of supervisors shall be democratically elected by the employees at the employees' representative assembly, employees' general meeting or otherwise.

The directors and senior management may not act concurrently as supervisors.

The board of supervisors shall appoint a chairman and may appoint a vice chairman. The chairman and the vice chairman of the board of supervisors are elected with approval of more than half of all the supervisors. The chairman of the board of supervisors shall convene and preside over the meetings of the board of supervisors. In the event that the chairman of the board of supervisors is incapable of performing or not performing his duties, the vice chairman of the board of supervisors shall convene and preside over the meetings of the board of supervisors. In the event that the vice chairman of the board of supervisors is incapable of performing or not performing his duties, a supervisor nominated by more than half of the supervisors shall convene and preside over the meetings of the board of supervisors.

Each term of office of a supervisor is three years and he or she may serve consecutive terms if re-elected. A supervisor shall continue to perform his duties in accordance with the laws, administrative regulations and articles of association until a duly re-elected supervisor takes office, if re-election is not conducted in a timely manner upon the expiry of his term of office, or if the resignation of supervisors results in the number of supervisors being less than the quorum.

The board of supervisors exercises the following powers:

- to review the company's financial position;
- to supervise the directors and senior management in their performance of their duties and to propose the removal of directors and senior management who have violated laws, regulations, the articles of association or the resolutions of shareholders' meeting;
- when the acts of directors and senior management are harmful to the company's interests, to require correction of those acts;
- to propose the convening of extraordinary shareholders' general meetings and to convene and preside over shareholders' general meetings when the board of directors fails to perform the duty of convening and presiding over shareholders' general meeting under this law;
- to initiate proposals for resolutions to shareholders' general meeting;
- to initiate proceedings against directors and senior management;
- other powers specified in the articles of association; and
- Supervisors may attend board meetings and make enquiries or proposals in respect of board resolutions. The board of supervisors may initiate investigations into any irregularities identified in the operation of the company and, where necessary, may engage an accounting firm to assist their work at the company's expense.

### **Manager and Senior Management**

Under the PRC Company Law, a company shall have a manager who shall be appointed or removed by the board of directors. The manager shall report to the board of directors and may exercise the following powers:

- to supervise the business and administration of the company and arrange for the implementation of resolutions of the board of directors;
- to arrange for the implementation of the company's annual business plans and investment proposals;
- to formulate the general administration system of the company;
- to formulate the company's detailed rules;
- to recommend the appointment and dismissal of deputy managers and person in charge of finance;

- to appoint or dismiss other administration officers (other than those required to be appointed or dismissed by the board of directors); and
- to other powers conferred by the board of directors or the articles of association.

The manager shall comply with other provisions of the articles of association concerning his/her powers. The manager shall attend board meetings.

According to the PRC Company Law, senior management shall mean the manager, deputy manager(s), person-in-charge of finance, board secretary (in case of a listed company) of a company and other personnel as stipulated in the articles of association.

#### **Duties of Directors, Supervisors and Senior Management**

Directors, supervisors and senior management of the company are required under the PRC Company Law to comply with the relevant laws, regulations and the articles of association, and have fiduciary and diligent duties to the company. Directors, supervisors and senior management are prohibited from abusing their powers to accept bribes or other unlawful income and from misappropriating of the company's properties. Directors and senior management are prohibited from:

- misappropriation of the company's capital;
- depositing the company's capital into accounts under his own name or the name of other individuals;
- loaning company funds to others or providing guarantees in favor of others supported by the company's assets in violation of the articles of association or without prior approval of the shareholders' general meeting or board of directors;
- entering into contracts or deals with the company in violation of the articles of association or without prior approval of the shareholders' general meeting;
- using their position and powers to procure business opportunities for themselves or others that should have otherwise been available to the company or operating for their own benefits or managing on behalf of others businesses similar to that of the company without prior approval of the shareholders' general meeting;
- accept and possess commissions paid by a third party for transactions conducted with the company;
- unauthorized divulgence of confidential business information of the company; or
- other acts in violation of their duty of loyalty to the company.

A director, supervisor or senior management who contravenes any law, regulation or the company's articles of association in the performance of his duties resulting in any loss to the company shall be personally liable to the company.

**Finance and Accounting**

Under the PRC Company Law, a company shall establish financial and accounting systems according to laws, administrative regulations and the regulations of the financial department of the State Council and shall at the end of each financial year prepare a financial and accounting report which shall be audited by an accounting firm as required by law. The company's financial and accounting report shall be prepared in accordance with provisions of the laws, administrative regulations and the regulations of the financial department of the State Council.

Pursuant to the PRC Company Law, the company shall deliver its financial and accounting reports to all shareholders within the time limit stipulated in the articles of association and make its financial and accounting reports available at the company for inspection by the shareholders at least 20 days before the convening of an annual general meeting of shareholders. It must also publish its financial and accounting reports.

When distributing each year's after-tax profits, it shall set aside 10% of its after-tax profits into a statutory common reserve fund (except where the fund has reached 50% of its registered capital).

If its statutory common reserve fund is not sufficient to make up losses of the previous year, profits of the current year shall be applied to make up losses before allocation is made to the statutory common reserve fund pursuant to the above provisions.

After allocation of the statutory common reserve fund from after-tax profits, it may, upon a resolution passed at the shareholders' general meeting, allocate discretionary common reserve fund from after-tax profits.

The remaining after-tax profits after making up losses and allocation of common reserve fund shall be distributed in proportion to the number of shares held by the shareholders, unless otherwise stipulated in the articles of association.

Shares held by the Company shall not be entitled to any distribution of profit.

The premium received through issuance of shares at prices above par value and other incomes required by the financial department of the State Council to be allocated to the capital reserve fund shall be allocated to the company's capital reserve fund.

The Company's reserve fund shall be applied to make up losses of the company, expand its business operations or be converted to increase the registered capital of the company. However, the capital reserve fund may not be applied to make up the company's losses. Upon the conversion of statutory common reserve fund into capital, the balance of the statutory common reserve fund shall not be less than 25% of the registered capital of the company before such conversion.

The Company shall have no other accounting books except the statutory accounting books. Its assets shall not be deposited in any accounts opened in the name of any individual.

#### **Appointment and Retirement of Accounting Firms**

Pursuant to the PRC Company Law, the appointment or dismissal of accounting firms responsible for the auditing of the company shall be determined by shareholders' general meeting or board of directors in accordance with provisions of articles of association. The accounting firm should be allowed to make representations when the shareholders' general meeting or board of directors conducts a vote on the dismissal of the accounting firm. The company should provide true and complete accounting evidences, books, financial and accounting reports and other accounting data to the accounting firm it employs without any refusal, withholding and misrepresentation.

The Special Regulations provide that a company shall employ an independent accounting firm complying with the relevant regulations of the State to audit its annual report and review and check other financial reports of the company. The accounting firm's term of office shall commence from their appointment at a shareholders' annual general meeting to the end of the next shareholders' annual general meeting.

#### **Distribution of Profits**

According to the PRC Company Law, a company shall not distribute profits before losses are covered and the statutory common reserve is drawn. Under the Mandatory Provisions, a company shall appoint receiving agents on behalf of holders of the overseas listed and foreign invested shares to receive on behalf of such shareholders dividends and other distributions payable in respect of their overseas listed and foreign invested shares.

#### **Amendments to Articles of Association**

Any amendments to the company's articles of association must be made in accordance with the procedures set out in the company's articles of association. Any amendment of provisions incorporated in the articles of association in connection with the Mandatory Provisions will only be effective after approval by the company's approval department authorized by the State Council and the CSRC. In relation to matters involving the company's registration, its registration with the authority must also be changed.

**Dissolution and Liquidation**

According to the PRC Company Law, a company shall be dissolved by reason of the following: (i) the term of its operations set down in the articles of association has expired or other events of dissolution specified in the articles of association have occurred; (ii) the shareholders' general meeting have resolved to dissolve the company; (iii) the company is dissolved by reason of merger or division; (iv) the business license is revoked; the company is ordered to close down or be dissolved; or (v) the company is dissolved by the people's court in response to the request of shareholders holding shares that represent more than 10% of the voting rights of all its shareholders, on the grounds that the company suffers significant hardship in its operation and management that cannot be resolved through other means, and the ongoing existence of the company would bring significant losses for shareholders.

In the event of (i) above, it may carry on its existence by amending its articles of association. The amendment of the articles of association in accordance with provisions set out above shall require approval of more than two thirds of voting rights of shareholders attending a shareholders' general meeting.

Where the company is dissolved in the circumstances described in subparagraphs (i), (ii), (iv), or (v) above, a liquidation group shall be established and the liquidation process shall commence within 15 days after the occurrence of an event of dissolution.

The members of the company's liquidation group shall be composed of its directors or the personnel appointed by the shareholders' general meeting. If a liquidation group is not established within the stipulated period, creditors may apply to the people's court and request the court to appoint relevant personnel to form the liquidation group. The people's court should accept such application and form a liquidation group to conduct liquidation in a timely manner.

The liquidation group shall exercise the following powers during the liquidation period:

- to handle the company's assets and to prepare a balance sheet and an inventory of the assets;
- to notify creditors through notice or public announcement;
- to deal with the company's outstanding businesses related to liquidation;
- to pay any tax overdue as well as tax amounts arising from the process of liquidation;
- to claim credits and pay off debts;
- to handle the company's remaining assets after its debts have been paid off; and
- to represent the company in civil lawsuits.

The liquidation group shall notify the company's creditors within 10 days after its establishment and issue public notices in newspapers within 60 days. A creditor shall lodge his claim with the liquidation group within 30 days after receiving notification, or within 45 days of the public notice if he did not receive any notification. A creditor shall state all matters relevant to his creditor rights in making his claim and furnish evidence. The liquidation group shall register such creditor rights. The liquidation group shall not make any debt settlement to creditors during the period of claim.

Upon liquidation of properties and the preparation of the balance sheet and inventory of assets, the liquidation group shall draw up a liquidation plan to be submitted to the shareholders' general meeting or people's court for confirmation.

The company's remaining assets after payment of liquidation expenses, wages, social insurance expenses and statutory compensation, outstanding taxes and debts shall be distributed to shareholders according to their shareholding proportion. It shall continue to exist during the liquidation period, although it can only engage in any operating activities that are related to the liquidation. The company's properties shall not be distributed to the shareholders before repayments are made in accordance to the foregoing provisions.

Upon liquidation of the company's properties and the preparation of the balance sheet and inventory of assets, if the liquidation group becomes aware that the company does not have sufficient assets to meet its liabilities, it must apply to the people's court for a declaration for bankruptcy.

Following such declaration, the liquidation group shall hand over all matters relating to the liquidation to the people's court.

Upon completion of the liquidation, the liquidation group shall submit a liquidation report to the shareholders' general meeting or the people's court for verification. Thereafter, the report shall be submitted to the registration authority of the company in order to cancel the company's registration, and a public notice of its termination shall be issued. Members of the liquidation group are required to discharge their duties honestly and in compliance with the relevant laws. Members of the liquidation group shall be prohibited from abusing their powers to accept bribes or other unlawful income and from misappropriating the company's properties.

A member of the liquidation group is liable to indemnify the company and its creditors in respect of any loss arising from his intentional or gross negligence.

### **Overseas Listing**

According to the Special Regulations, a company shall obtain the approval of the CSRC to list its shares overseas. A company's plan to issue overseas listed and foreign invested shares and domestic shares which has been approved by the CSRC may be implemented by the board of directors of the company by way of separate issue within 15 months after approval is obtained from the CSRC.



**Loss of Share Certificates**

If a registered share certificate is lost, stolen or destroyed, the relevant shareholder may apply, in accordance with the relevant provisions set out in the Civil Procedure Law, to a people's court to declare such certificate invalid. After the people's court declares the invalidity of such certificate, the shareholder may apply to the company for a replacement share certificate. A separate procedure regarding the loss of overseas listed and foreign invested share certificates is provided for in the Mandatory Provisions.

**Suspension and Termination of Listing**

The PRC Company Law has deleted provisions governing suspension and termination of listing. The PRC Securities Law has been amended as follows:

The trading of shares of a company on a stock exchange may be suspended if so decided by the stock exchange under one of the following circumstances:

- (i) the registered capital or shareholding distribution no longer complies with the necessary requirements for a listed company;
- (ii) the company failed to make public its financial position in accordance with the requirements or there is false information in the company's financial report with the possibility of misleading investors;
- (iii) the company has committed a major breach of the law;
- (iv) the company has incurred losses for three consecutive years; or
- (v) other circumstances as required by the listing rules of the relevant stock exchange(s).

Under the PRC Securities Law, in the event that the conditions for listing are not satisfied within the period stipulated by the relevant stock exchange in the case described in (i) above, or the company has refused to rectify the situation in the case described in (ii) above, or the company fails to become profitable in the next subsequent year in the case described in (iv) above, the relevant stock exchange shall have the right to terminate the listing of the shares of the company.

**Merger and Demerger**

Companies may merge through merger by absorption or through the establishment of a newly merged entity. If it merges by absorption, the company which is absorbed shall be dissolved. If it merges by forming a new corporation, both companies will be dissolved.

**SECURITIES LAW AND REGULATIONS**

The PRC has promulgated a number of regulations that relate to the issue and trading of shares and disclosure of information. In October 1992, the State Council established the Securities Committee and the CSRC. The Securities Committee is responsible for coordinating the drafting of securities regulations, formulating securities-related policies, planning the development of securities markets, directing, coordinating and supervising all securities-related institutions in the PRC and administering the CSRC. The CSRC is the regulatory arm of the Securities Committee and is responsible for the drafting of regulatory provisions of securities markets, supervising securities companies, regulating public offers of securities by PRC companies in the PRC or overseas, regulating the trading of securities, compiling securities related statistics and undertaking relevant research and analysis. In April 1998, the State Council consolidated the two departments and reformed the CSRC.

The Interim Provisional Regulations on the Administration of Share Issuance and Trading (《股票發行與交易管理暫行條例》) deals with the application and approval procedures for public offerings of equity securities, trading in equity securities, the acquisition of listed companies, deposit, clearing and transfer of listed equity securities, the disclosure of information with respect to a listed company, investigation, penalties and dispute settlement.

On December 25, 1995, the State Council promulgated and implemented the Regulations of the State Council Concerning Domestic Listed Foreign Shares of Joint Stock Limited Companies (《國務院關於股份有限公司境內上市外資股的規定》). These regulations deal mainly with the issue, subscription, trading and declaration of dividends and other distributions of domestic listed and foreign invested shares and disclosure of information of joint stock limited companies having domestic listed and foreign invested shares.

The PRC Securities Law took effect on July 1, 1999 and was revised on August 28, 2004, October 27, 2005, June 29, 2013 and August 31, 2014, respectively. This is the first national securities law in the PRC, which is divided into 12 chapters and 240 articles regulating, among other things, the issue and trading of securities, takeovers by listed companies, securities exchanges, securities companies and the duties and responsibilities of the State Council's securities regulatory authorities. The PRC Securities Law comprehensively regulates activities in the PRC securities market. Article 238 of the PRC Securities Law provides that domestic enterprises shall obtain prior approval from the State Council's regulatory authorities to list its shares outside the PRC. Currently, the issue and trading of foreign issued shares (including H shares) are mainly governed by the rules and regulations promulgated by the State Council and the CSRC.

**ARBITRATION AND ENFORCEMENT OF ARBITRAL AWARDS**

The Arbitration Law of the PRC (《中華人民共和國仲裁法》) (the “Arbitration Law”) was passed by the Standing Committee of the NPC on August 31, 1994, became effective on September 1, 1995 and was amended on August 27, 2009 and September 1, 2017. Under the Arbitration Law, an arbitration committee may, before the promulgation by the PRC Arbitration Association of arbitration regulations, formulate interim arbitration rules in accordance with the Arbitration Law and the Civil Procedure Law. Where the parties have by agreement provided arbitration as the method for dispute resolution, the people’s court will refuse to handle the case except when the arbitration agreement is declared invalid.

The Mandatory Provisions require an arbitration clause to be included in the articles of association of an issuer. Matters in arbitration include any disputes or claims in relation to the issuer’s affairs or as a result of any rights or obligations arising under its articles of association, the PRC Company Law or other relevant laws and administrative regulations.

Where a dispute or claim of rights referred to in the preceding paragraph is referred to arbitration, the entire claim or dispute must be referred to arbitration, and all persons who have a cause of action based on the same facts giving rise to the dispute or claim or whose participation is necessary for the resolution of such dispute or claim, must comply with the arbitration. Disputes in respect of the definition of shareholder and disputes in relation to the issuer’s register of shareholders need not be resolved by arbitration.

A claimant may elect for arbitration to be carried out at either the China International Economic and Trade Arbitration Commission (中國國際經濟貿易仲裁委員會) (“CIETAC”) in accordance with its rules or the Hong Kong International Arbitration center (“HKIAC”) in accordance with its Securities Arbitration Rules (the “Securities Arbitration Rules”). Once a claimant refers a dispute or claim to arbitration, the other party shall submit to the arbitral body elected by the claimant. If the claimant elects for arbitration to be carried out at the HKIAC, any party to the dispute or claim may apply for a hearing to take place in Shenzhen in accordance with the Securities Arbitration Rules. In accordance with the Arbitration Regulations of CIETAC (《中國國際經濟貿易仲裁委員會仲裁規則》) which was amended on November 4, 2014 and will be implemented on January 1, 2015, CIETAC shall deal with economic and trading disputes over contractual or non-contractual transactions, including disputes involving Hong Kong based on the agreement of the parties. The arbitration commission is established in Beijing and its branches and centers have been set up in Shenzhen, Shanghai, Tianjin and Chongqing.

Under the Arbitration Law and the Civil Procedure Law, an arbitral award is final and binding on the parties. If a party fails to comply with an award, the other party to the award may apply to the people’s court for enforcement. A people’s court may refuse to enforce an arbitral award made by an arbitration commission if there is any irregularity on the procedures or composition of arbitrators specified by law or the award exceeds the scope of the arbitration agreement or is outside the jurisdiction of the arbitration commission.

A party seeking to enforce an arbitral award of PRC arbitration panel against a party who, or whose property, is not within the PRC, may apply to a foreign court with jurisdiction over the case for enforcement. Similarly, an arbitral award made by a foreign arbitration body may be recognized and enforced by the PRC courts in accordance with the principles of reciprocity or any international treaty concluded or acceded to by the PRC. The PRC acceded to the Convention on the Recognition and Enforcement of Foreign Arbitral Awards (the “New York Convention”) adopted on June 10, 1958 pursuant to a resolution of the Standing Committee of the NPC passed on December 2, 1986. The New York Convention provides that all arbitral awards made in a state which is a party to the New York Convention shall be recognized and enforced by all other parties to the New York Convention, subject to their right to refuse enforcement under certain circumstances, including where the enforcement of the arbitral award is against the public policy of the state to which the application for enforcement is made. It was declared by the Standing Committee of the NPC simultaneously with the accession of the PRC that (i) the PRC will only recognize and enforce foreign arbitral awards on the principle of reciprocity and (ii) the PRC will only apply the New York Convention in disputes considered under PRC laws to arise from contractual and non-contractual mercantile legal relations.

An arrangement was reached between Hong Kong and the Supreme People’s Court for the mutual enforcement of arbitral awards. On June 18, 1999, the Supreme People’s Court adopted the Arrangement on Mutual Enforcement of Arbitral Awards between Mainland China and Hong Kong (《關於內地與香港特別行政區相互執行仲裁裁決的安排》), which became effective on February 1, 2000. In accordance with this arrangement, awards made by PRC arbitral authorities under the Arbitration Law can be enforced in Hong Kong, and Hong Kong arbitration awards are also enforceable in the PRC.

### **Judicial judgment and its enforcement**

According to the Arrangement on Mutual Recognition and Enforcement of Judgments in Civil and Commercial Matters by the Courts of the Mainland China and of the Hong Kong Special Administrative Region Pursuant to Agreed Jurisdiction by Parties Concerned (《最高人民法院關於內地與香港特別行政區法院相互認可執行當事人協議管轄的民事案件判決的安排》) promulgated by the Supreme People’s Court on July 3, 2008 and implemented on August 1, 2008, in the case of final judgment, defined with payment amount and enforcement power, made between the court of China and the court of the Hong Kong Special Administrative Region in a civil and commercial case with written jurisdiction agreement, any party concerned may apply to the People’s Court of China or the court of the Hong Kong Special Administrative Region for recognition and enforcement based on this arrangement. “Choice of court agreement in written” refers to a written agreement defining the exclusive jurisdiction of either the People’s Court of China or the court of the Hong Kong Special Administrative Region in order to resolve dispute with particular legal relation occurred or likely to occur by the party concerned. Therefore, the party concerned may apply to the Court of China or the court of the Hong Kong Special Administrative Region to recognize and enforce the final judgment made in China or Hong Kong that meet certain conditions of the aforementioned regulations.

**2. MATERIAL DIFFERENCES BETWEEN CERTAIN ASPECTS OF CORPORATION  
LAW IN THE PRC AND HONG KONG**

Hong Kong company law is primarily set out in the Companies Ordinance and the Companies (Winding Up and Miscellaneous Provisions) Ordinance, supplemented by common law and rules of equity that apply to Hong Kong. As a joint stock limited company incorporated in the PRC that is seeking a listing of shares on the Stock Exchange, we are governed by the PRC Company Law and all other rules and regulations promulgated pursuant to the PRC Company Law. Set out below is a summary of certain material differences between Hong Kong company law and the PRC Company Law. This summary is, however, not intended to be an exhaustive comparison.

**Corporate Existence**

Under Hong Kong company law, a company with share capital is incorporated by the Registrar of Companies in Hong Kong, which issues a certificate of incorporation to the Company upon its incorporation, and the company will acquire an independent corporate existence henceforth. A company may be incorporated as a public company or a private company. Pursuant to the Companies Ordinance, the articles of association of a private company incorporated in Hong Kong shall contain certain pre-emptive provisions. A public company's articles of association do not contain such pre-emptive provisions.

Under the PRC Company Law, a joint stock limited company may be incorporated by promotion or public subscription.

**Share Capital**

Under Hong Kong law, the directors of a Hong Kong company may, with the prior approval of the shareholders if required, issue new shares of the company. The PRC Company Law does not provide for authorized share capital. The Company's registered capital is the amount of its issued share capital. Any increase in the Company's registered capital must be approved by our Shareholders' general meeting and shall be approved by/filed with the relevant PRC governmental and regulatory authorities (if applicable). Under the Securities Law, a company which is authorized by the relevant securities regulatory authority to list its shares on a stock exchange must have a total share capital of not less than RMB30 million. The Companies Ordinance does not prescribe any minimum capital requirement for companies incorporated in Hong Kong.

Under the PRC Company Law, the shares may be subscribed for in the form of money or non-monetary assets (other than assets not entitled to be used as capital contributions under relevant laws or administrative regulations). For non-monetary assets to be used as capital contributions, appraisals must be carried out to ensure there is no over-valuation or under-valuation of the assets. There is no such restriction on a company incorporated in Hong Kong.

**Restrictions on Shareholding and Transfer of Shares**

Generally, A Shares of the Company, which are denominated and subscribed for in Renminbi, can be subscribed for and traded by PRC investors, qualified overseas institutional investors or qualified overseas strategic investors. Overseas listed shares, which are denominated in Renminbi and subscribed for in a currency other than Renminbi, may only be subscribed for, and traded by, investors from Hong Kong, Macau and Taiwan or any country and territory outside the PRC, or qualified domestic institutional investors.

Under the PRC Company Law, a promoter of a joint stock limited company is not allowed to transfer the shares it holds for a period of one year after the date of establishment of the company. Shares in issue prior to a public offering of the company cannot be transferred within one year from the listing date of the shares on a stock exchange. Shares in a joint stock limited liability company held by its directors, supervisors and senior management and transferred each year during their term of office shall not exceed 25% of the total shares they held in a company, and the shares they held in a company cannot be transferred within one year from the listing date of the shares, and also cannot be transferred within half a year after the said personnel has left office. The articles of association may set other restrictive requirements on the transfer of a company's shares held by its directors, supervisors and senior management. There are no restrictions on shareholdings and transfers of shares under Hong Kong law apart from (i) the restriction on the Company to issue additional Shares within six months, and (ii) 12-month lockup on Controlling Shareholders' disposal of Shares, after the Global Offering.

**Financial Assistance for Acquisition of Shares**

The PRC Company Law does not prohibit or restrict a joint stock limited company or its subsidiaries from providing financial assistance for the purpose of an acquisition of its own or its holding company's shares. However, the Mandatory Provisions contain certain restrictions on a company and its subsidiaries on providing such financial assistance similar to those under Hong Kong company law.

**Notice of Shareholders' Meetings**

Under the PRC Company Law, notice of a shareholder's annual general meeting must be given not less than 20 days before the meeting. Whereas notice of an extraordinary general meeting must be given not less than 15 days before the meeting. If a company issues bearer shares, notice of a shareholder's general meeting must be given at least 30 days prior to the meeting. Under the Special Regulations and the Mandatory Provisions, at least 45 days' written notice must be given to all shareholders in advance, and any shareholder who wishes to attend the meeting must reply in writing at least 20 days before the date of the meeting.

For a company incorporated in Hong Kong with limited liability, the minimum period of notice of a general meeting is 14 days. Further, where a meeting involves consideration of a resolution requiring special notice, the company must also give its shareholders notice of the resolution at least 14 days before the meeting. The notice period for the annual shareholders' general meeting is 21 days.

**Quorum for Shareholders' Meetings**

The PRC Company Law does not specify any quorum requirement for a shareholders' general meeting, but the Special Regulations and the Mandatory Provisions provide that general meetings may only be convened when replies to the notice of that meeting have been received from shareholders whose shares represent at least 50% of the voting rights at least 20 days before the proposed date of the meeting, or if that 50% level is not achieved, the company shall within five days notify its shareholders again by way of a public announcement and the shareholders' general meeting may be held thereafter. Under Hong Kong law, the quorum for a shareholders' meeting is two members, unless the articles of association of a company specifies otherwise or the company has only one member, in which case the quorum is one.

**Voting at Shareholders' Meetings**

Under the PRC Company Law, the passing of any resolution requires more than one-half of the affirmative votes held by our shareholders present in person or by proxy at a shareholders' meeting except in cases such as proposed amendments to our Articles of Association, increase or decrease of registered capital, merger, division, dissolution or transformation, which require two-thirds of the affirmative votes cast by shareholders present in person or by proxy at a shareholders' general meeting.

Under Hong Kong law, an ordinary resolution is passed by a simple majority of affirmative votes cast by shareholders present in person, or by proxy, at a general meeting, and a special resolution is passed by not less than three-fourths of affirmative votes cast by shareholders present in person, or by proxy, at a general meeting.

**Variation of Class Rights**

The PRC Company Law makes no specific provision relating to variation of class rights. However, the PRC Company Law states that the State Council can promulgate requirements relating to other kinds of shares. The Mandatory Provisions contain detailed provisions relating to the circumstances which are deemed to be variations of class rights and the approval procedures required to be followed in respect thereof. These provisions have been incorporated in the Articles of Association, which are summarized in "Appendix VII – Summary of Articles of Association."



Under the Companies Ordinance, no rights attached to any class of shares can be varied except (i) with the passing of a special resolution by the shareholders of the relevant class at a separate meeting sanctioning the variation, (ii) with the written consent of shareholders representing at least three-fourths of the total voting rights of shareholders of the relevant class, or (iii) if there are provisions in the articles of association relating to the variation of those rights, then in accordance with those provisions.

As required by the Listing Rules and the Mandatory Provisions, we have adopted in the Articles of Association provisions protecting class rights in a similar manner to those found in Hong Kong law. Holders of overseas listed shares and domestic listed shares are defined in the Articles of Association as different classes. The special procedures for voting by a class of Shareholders shall not apply in the following circumstances: (i) where we issue, either separately or concurrently in any 12-month period, upon approval by special resolutions passed at a general meeting, A shares and H shares not more than 20% of each of the existing A shares and H shares, respectively; (ii) where the plan for the issue of A shares and H shares upon our establishment is implemented within 15 months following the date of approval by the securities regulatory authorities under the State Council or within the stated period as stipulated by applicable requirements, and (iii) where the Company issues and lists its H shares overseas, upon receiving the approval of the State Council or the securities regulatory authorities under the State Council, our shareholders may liquidate the unlisted shares they hold for dealing in overseas.

#### **Derivative Action by Minority Shareholders**

Under Hong Kong company law, a shareholder may, with the leave of the Court, start a derivative action on behalf of a company for any misconduct committed by its directors against the company. For example, leave may be granted where the directors control a majority of votes at a general meeting, and could thereby prevent the company from suing the directors in its own name.

Pursuant to the PRC Company Law, in the event where the directors and senior management of a joint stock limited company violate laws, administrative regulations or its articles of association, resulting in losses to the company, the shareholders individually or jointly holding over 1% of the shares in the company for more than 180 consecutive days may request in writing the board of supervisors to initiate proceedings in the people's court. In the event that the board of supervisors violates as such, the above said shareholders may send written request to the board of directors to initiate proceedings in the people's court. Upon receipt of such written request from the shareholders, if the board of supervisors or the board of directors refuses to initiate such proceedings, or has not initiated proceedings within 30 days upon receipt of the request, or if under urgent situations, failure of initiating immediate proceeding may cause irremediable damages to the company, the above said shareholders shall, for the benefit of the company's interests, have the right to initiate proceedings directly to the court in their own name.



In addition, the Mandatory Provisions provide us with certain remedies against the Directors, Supervisors and senior management who breach their duties to the Company. In addition, as a condition to the listing of overseas listed foreign Shares on the Stock Exchange, each director and supervisor of a joint stock limited company is required to give an undertaking to observe the articles of association in favor of the company. This allows minority Shareholders to take action against our Directors and Supervisors in default.

### **Minority Shareholder Protection**

Under the Companies Ordinance, a shareholder who alleges that the affairs of a company are conducted in a manner unfairly prejudicial to his interests may petition to the Court to make an appropriate order to give relief to the unfairly prejudicial conduct. Alternatively, pursuant to the Companies (Winding Up and Miscellaneous Provisions) Ordinance, a shareholder may seek to wind up the company on the just and equitable ground. In addition, on the application of a specified number of members, the Financial Secretary may appoint inspectors who are given extensive statutory powers to investigate the affairs of a company incorporated or registered in Hong Kong. The PRC Company Law provides that any shareholders holding 10% or above of voting rights of all issued shares of a company may request a People's Court to dissolve the company to the extent that the operation or management of the company experiences any serious difficulties and its continuous existence would cause serious losses to them, and no other alternatives can resolve such difficulties.

The Company, as required by the Mandatory Provisions, has adopted in its Articles of Association minority Shareholder protection provisions similar to (though not as comprehensive as) those available under the Hong Kong law. These provisions state that a controlling shareholder may not exercise its voting rights in a manner prejudicial to the interests of other shareholders, may not relieve a director or supervisor of his duty to act honestly in our best interests or may not approve the expropriation by a director or supervisor of our assets or the individual rights of other shareholders.

### **Directors**

The PRC Company Law, unlike Hong Kong company law, does not contain any requirements relating to the declaration of directors' interests in material contracts, restrictions on directors' authority in making major dispositions, restrictions on companies providing certain benefits to directors and indemnification in respect of directors' liability and prohibitions against compensation for loss of office without shareholders' approval. The Mandatory Provisions, however, contain certain requirements and restrictions on major disposals and specify the circumstances under which a director may receive compensation for loss of office.

**Board of Supervisors**

Under the PRC Company Law, a joint stock limited company's directors and senior management are subject to the supervision of a board of supervisors. There is no mandatory requirement for the establishment of a board of supervisors for a company incorporated in Hong Kong. The Mandatory Provisions provide that each supervisor owes a duty, in the exercise of his powers, to act in good faith and honestly in what he considers to be in the best interests of the Company and to exercise the care, diligence and skill that a reasonably prudent person would exercise in comparable circumstances.

**Fiduciary Duties**

In Hong Kong, directors owe fiduciary duties to the company, including the duty not to act in conflict with the company's interests. Furthermore, the Companies Ordinance has codified the directors' statutory duty of care. Under the Special Regulations, directors, supervisors, managers and other members of senior management of the company shall honestly and diligently perform their duties for the company.

**Financial Disclosure**

Under the PRC Company Law, a joint stock limited company is required to make available at the company for inspection by shareholders its financial report 20 days before its annual general meeting. In addition, a joint stock limited company of which the shares are publicly offered must publish its financial report. The Companies Ordinance requires a company incorporated in Hong Kong to send to every shareholder a copy of its financial statements, auditors' report and directors' report, which are to be presented before the company in its annual general meeting, not less than 21 days before such meeting. According to the PRC laws, a company shall prepare its financial accounting reports as at the end of each accounting year, and submit the same to accounting firms for auditing as required by law. The Mandatory Provisions require that a company must, in addition to preparing financial statements according to the CAS, have its financial statements prepared and audited in accordance with international or Hong Kong accounting standards and its financial statements must also contain a statement of the financial effect of the material differences (if any) from the financial statements prepared in accordance with the CAS.

The Special Regulations require that there should not be any inconsistency between the information disclosed within and outside the PRC and that, to the extent that there are differences in the information disclosed in accordance with the relevant PRC and overseas laws, regulations and requirements of the relevant stock exchanges, such differences should also be disclosed simultaneously.

**Information on Directors and Shareholders**

The PRC Company Law gives shareholders the right to inspect the company's articles of association, minutes of the general meetings and financial and accounting reports. Under the articles of association, shareholders have the right to inspect and copy (at reasonable charges) certain information on shareholders and on directors which is similar to the rights of shareholders of Hong Kong companies under the Companies Ordinance.

**Receiving Agent**

Under the Hong Kong law, dividends once declared by the board of directors will become debts payable to shareholders. The limitation period for debt recovery action under Hong Kong law is six years, while under the PRC law this limitation period is two years. The Mandatory Provisions require that the relevant company shall appoint a receiving agent for shareholders who hold overseas listed foreign shares, and the receiving agent shall receive on behalf of such holders of shares dividends declared and other monies owed by the company in respect of its overseas listed foreign shares.

**Corporate Reorganization**

Corporate reorganization involving a company incorporated in Hong Kong may be effected in a number of ways, such as a transfer of the whole or part of the business or property of the company in the course of voluntary winding up to another company pursuant to Section 237 of the Companies (Winding Up and Miscellaneous Provisions) Ordinance or a compromise or arrangement between the company and its creditors or between the company and its members pursuant to Section 673 and Division 2 of Part 13 of the Companies Ordinance, which requires the sanction of the court. In addition, subject to the shareholders' approval, an intra-group wholly-owned subsidiary company may also be amalgamated horizontally or vertically under the Companies Ordinance. Under PRC law, merger, division, dissolution or change to the status of a joint stock limited liability company has to be approved by shareholders in general meeting.

**Mandatory Transfers**

Under the PRC Company Law, a joint stock limited liability company is required to make transfers equivalent to certain prescribed percentages of its after tax profit to the statutory common reserve fund. There are no corresponding provisions under Hong Kong law.

**Arbitration of Disputes**

In Hong Kong, disputes between shareholders and a company or its directors, managers and other senior management may be resolved through the courts. The Mandatory Provisions provides that disputes between a holder of H shares and the Company, a holder of H shares and directors, supervisors, managers and other members of senior management of the Company or

a holder of H shares and a holder of domestic listed shares, arising from the Articles of Association, the PRC Company Law or other relevant laws and administrative regulations which concerns the affairs of the Company should, with certain exceptions, be referred to arbitration at either the HKIAC or the China International Economic and Trade Arbitration Commission. Such arbitration is final and conclusive,

The Securities Arbitration Rules of the HKIAC contain provisions allowing, upon application by any party, an arbitral tribunal to conduct a hearing in Shenzhen for cases involving the affairs of companies incorporated in the PRC and listed on the Stock Exchange so that PRC parties and witnesses may attend. Where any party applies for a hearing to take place in Shenzhen, the tribunal shall, where satisfied that such application is based on bona fide grounds, order the hearing to take place in Shenzhen conditional upon all parties, including witnesses and arbitrators, being permitted to enter Shenzhen for the purpose of the hearing. Where a party, other than a PRC party or any of its witnesses or any arbitrator, is not permitted to enter Shenzhen, then the tribunal shall order that the hearing be conducted in any practicable manner, including the use of electronic media. For the purpose of the Securities Arbitration Rules of the HKIAC, a PRC party means a party domiciled in the PRC other than the territories of Hong Kong, Macau and Taiwan.

### **Remedies of a Company**

Under the PRC Company Law, if a director, supervisor or manager in carrying out his duties infringes any law, administrative regulation or the articles of association of a company, which results in damage to the company, that director, supervisor or manager should be responsible to the company for such damages. In addition, the Listing Rules require listed companies' articles to provide for remedies of the company similar to those available under Hong Kong law (including rescission of the relevant contract and recovery of profits from a director, supervisor or senior management).

### **Dividends**

The company has the power in certain circumstances to withhold, and pay to the relevant tax authorities, any tax payable under PRC law on any dividends or other distributions payable to a shareholder. Under Hong Kong law, the limitation period for an action to recover a debt (including the recovery of declared dividends) is six years, whereas under PRC laws, the relevant limitation period is two years. The company must not exercise its powers to forfeit any unclaimed dividend in respect of shares until after the expiry of the applicable limitation period.

### **Closure of Register of Shareholders**

The Companies Ordinance requires that the register of shareholders of a company must not be closed for the registration of transfers of shares for more than thirty days (extendable to sixty days in certain circumstances) in a year, whereas, as required by the Mandatory Provisions, share transfers shall not be registered within thirty days before the date of convening a general meeting or within five days before the base date of distribution of dividends.

This Appendix sets out summaries of the main clauses of our Articles of Association adopted on June 22, 2018, which shall become effective as at the date on which the H shares are listed on the Stock Exchange. As the main purpose of this Appendix is to provide potential investors with an overview of the Articles of Association, it may not necessarily contain all information that is important for prospective investors. As discussed in the appendix headed “Appendix VIII – Documents Delivered to the Registrar of Companies and Available for Inspection” to this Prospectus, the full document of the Articles of Association in Chinese is available for examination.

## **1      DIRECTORS AND BOARD OF DIRECTORS**

### **(1)    Power to allocate and issue shares**

The Articles of Association does not contain clauses that authorize the Board of Directors to allocate or issue shares. The Board of Directors shall prepare suggestions for share allotment or issue, which are subject to approval by the Shareholders at the general Shareholders’ meeting in the form of a special resolution. Any such allotment or issue shall be in accordance with the procedures stipulated in appropriate laws, administrative regulations and supervision rules of shares listed region, the Board of Director shall not dispose of or agree to dispose of assets before the approval of the general shareholder’s meeting.

### **(2)    Power to dispose assets of our Company or any subsidiary**

In any case that the Board of Directors intends to dispose assets, if the sum of the expected value of the fixed assets to be disposed of, and the amount or value of the cost received from the fixed assets of our Company disposed of within the four months immediately preceding this suggestion for disposal exceeds 33% of the value of fixed assets of our Company indicated on the latest audited balance sheet submitted at the Shareholders’ meeting.

For the purposes of the Articles of Association, a disposition of fixed assets includes certain acts of transfer of interests in assets but does not include the provision of fixed assets as security.

The validity of the transactions with respect to the disposal of fixed assets of our Company shall not be affected by the violation of the above restrictions contained in the Articles of Association.

**(3) Emoluments or compensation for loss of office**

As provided in the written contract entered into between our Company and the Directors or Supervisors in connection with their emoluments, they are entitled to compensation or other payments for loss of office or retirement as a result of the acquisition of our Company, subject to the approval of the Shareholders at the general Shareholders' meeting in advance. The aforesaid emoluments include:

- i. Emoluments in respect of his service as a Director, Supervisor or senior management of our Company;
- ii. Emoluments in respect of his service as a Director, Supervisor or senior management of any subsidiary of our Company;
- iii. Emoluments in respect of other service in relation to the management of our Company and any subsidiary of our Company; and
- iv. Payment by way of compensation for loss of office or retirement from office of a Director or Supervisors.

Acquisition of our Company refers to any of the following circumstances:

- i. An offer made by any person made to all Shareholders; or
- ii. An offer is made by any person with a view to the offeror becoming the controlling shareholder of our Company.

The definition of controlling shareholder is the same as defined in the Articles of Association.

If the relevant Director or Supervisor fails to comply with the above requirements, any payment received shall belong to the person who sells the shares for accepting the aforesaid offer. The Director or Supervisor shall bear all expenses arising from the distribution of such payments to the person in a proportional manner and all related expenses shall not be deducted from these payments distributed.

**(4) Loans or guarantees of loans to Directors, Supervisors or other management personnel**

Our Company shall neither provide the Directors, Supervisors or senior management of our Company with loans or loan guarantees either directly or indirectly nor provide persons related to the above personnel with loans or loan guarantees. In the event that our Company provides loans in violation of this restriction, the person who receives the loan(s) must pay off the loan(s) immediately, regardless of the conditions of loans. Any loan guarantee provided by our Company in violation of the above requirements shall not be mandatorily enforced against us, unless under the following circumstances:

- i. The loan provider unknowingly provides loans to personnel related to the Directors, Supervisors or senior management of our Company; or
- ii. The collateral provided by our Company is sold lawfully by the lender to the buyer in good faith. The following circumstances are exempted from the above clauses:
  - (i) Our Company provides our subsidiaries with loans or loan guarantees;
  - (ii) Our Company provides any of the Directors, Supervisors or senior management with loans, loan guarantees or any other fund pursuant to the employment contracts approved at the Shareholders' meeting to pay all expenses incurred for the purpose of our Company or performing his duties owed to our Company; and
  - (iii) In case that the normal scope of business of our Company covers the provision of loans or loan guarantees, our Company may provide any of the Directors, Supervisors or senior management and other related personnel with loans or loan guarantees, provided that the conditions governing the above loans or loan guarantees shall be normal commercial conditions.

**(5) Provide financial assistance for acquiring the shares of the Company or shares of any subsidiary**

Subject to the Articles of Association, our Company or our subsidiaries (including our affiliated enterprises) shall not provide any financial assistance at any time or in any kind to personnel that acquires or plans to acquire our shares. Such personnel include any who undertake obligations, directly or indirectly, from acquiring the shares; and our Company or any of our subsidiaries (including our affiliated enterprises) shall not provide personnel mentioned in the preceding paragraph with financial aid at any time or in any manner, to mitigate or exempt the obligations of the above personnel.

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## APPENDIX VI      SUMMARY OF THE ARTICLES OF ASSOCIATION

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For the purpose of the above provisions, “Financial aid” includes, but is not limited to:

- i. Gifts;
- ii. Guarantees (including acts of the guarantor assuming liabilities or providing properties to ensure that the obligor performs the obligations), compensation (excluding compensation arising from mistakes of our Company), release or waiver of rights;
- iii. Provision of loans or signing of contracts whereby our Company performs some obligations before others, change of the parties to the loans/contracts as well as the assignment of the rights in the loans/contracts; and
- iv. Financial aid provided by our Company in any other manner when it is insolvent, has no net assets, or will suffer significant decreases in net assets.

“Assuming obligations” includes obligator undertaking obligations by way of contract or the making of an arrangement (whether enforceable or not, and whether made on its own account or with any other persons), or changing its financial status in any other manner.

The following transactions are not deemed to be prohibited:

- i. Related financial aid provided by our Company which is in good faith in our interest and the main purpose of the financial aid is not to acquire our shares or is an incidental part of a master plan of our Company;
- ii. The lawful distribution of our properties by way of dividend;
- iii. The allotment of bonus shares as shares;
- iv. Reducing the registered capital, redeeming the shares or adjusting the equity structure pursuant to the Articles of Association;
- v. Our Company granting loans within our scope of business and in the ordinary course of our business, provided that such loans shall not result in reduction in the net assets of our Company or even if the net assets are reduced, such financial aid is paid from the profit available for distribution; and
- vi. Our Company providing the employee stock ownership plan with fund, provided that such loans shall not result in reduction in the net assets of our Company or, even if the net assets are reduced, such financial aid is paid from the profit available for distribution.



**(6) Disclosure of interests in contracts, transactions or arrangements with the Company**

Where a Directors, Supervisors and senior management has material interests in the contracts, transactions or arrangements that our Company has entered into or plans to enter into directly or indirectly (except for employment contracts that our Company has entered into with the Directors, Supervisors and senior management), the above personnel shall disclose the nature and degree of their interests to the Board of Directors as soon as possible no matter whether the above contracts, transactions, arrangements or suggestions are subject to the approval of the Board of Directors in normal circumstances.

With respect to any contract, transaction or arrangement in which a Director or his associates have a material interest, the Director shall not vote and shall not be included in the quorum. Unless the Directors, Supervisors and senior management who have interests have made disclosure to the Board of Directors in accordance with the above requirements and the Board of Directors approves the matters at the meeting in which they are not included in the quorum nor participate in voting, our Company shall have the right to cancel the contracts, transactions or arrangements, except where the opposite party is a party in good faith without knowledge of the acts of related Directors, Supervisors and senior management violating their obligations.

Where related personnel of the Directors, Supervisors and senior management have interests in certain contracts, transactions and arrangements, the relevant Directors, Supervisors and senior management shall be deemed to have interests.

Prior to our Company's first considering the relevant contracts, transactions or arrangements, if the Directors, Supervisors and senior management have notified the Board of Directors in writing and stated that with regard to the content of such notice, they have interest in certain contracts, transactions and arrangements thereafter. And within the scope specified by such notice, the relevant Directors, Supervisors and senior management have made disclosures which are in accordance with this Article of Association.

**(7) Remuneration**

Our Company shall sign written agreements with the Directors and Supervisors regarding remuneration, which shall be subject to prior approval of the general Shareholders' meeting.

**(8) Appointment, resignation and dismissal**

The Board of Directors consists of twelve Directors, four of which are independent non-executive Directors. The Board of Directors has one chairman. The Shareholders' meeting can decide whether a vice chairman of the Board shall be elected and the way of election via ordinary resolution. Directors are elected at the general Shareholders' meeting. The Directors need not hold any of our shares.

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## APPENDIX VI      SUMMARY OF THE ARTICLES OF ASSOCIATION

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The chairman and vice chairman of the Board shall be elected and dismissed by a vote of more than one half of the Directors. Provided that it is in compliance with relevant laws, regulations and rules as well as the Listing Rules, the general Shareholders' meeting may remove any Director whose term has not expired by an ordinary resolution without affecting any claim for damages that may be made pursuant to any contract.

The chairman, vice chairman of the Board and other Directors serve three-year terms. Upon expiration of the term, the Director may be re-elected. Director can be the general manager or other senior management personnel at the same time. However, the number of the Directors who are also general manager or other senior management personnel and the Director who represents employees shall not be more than half of the total number of Directors.

None of the following persons shall serve as our Director, Supervisor or senior management:

- i. A person who has no civil capacity or has limited civil capacity;
- ii. A person who has been imposed penalty for the offense of corruption, bribery, embezzlement, larceny, or disrupting the social economic order and is within five years of the expiry date of punishment or has been deprived of political rights because of this conviction and is within five years of the expiry date of the sentence;
- iii. A person who is a former director, factory manager or manager of a company or enterprise that is bankrupt and liquidated, was personally liable for the bankruptcy of such company or enterprise, and is within three years of the date of completion of bankruptcy and liquidation of such company or enterprise;
- iv. A person who has served as the legal representative of a company or enterprise whose business license was revoked or was ordered to close due to violation of laws, was personally liable, and is within three years of the date on which the business license of such company or enterprise was revoked;
- v. A person who has a relatively large sum of debt, which was not paid at maturity;
- vi. A person who is investigated by the judicial agencies for violation of criminal law and whose case is pending;
- vii. A person who is subject to the competent authority of securities of the State Council's punishment which prohibited them from entering into the securities market for a period which has not yet expired;
- viii. A person judged by the competent agencies to have violated the provisions of relevant securities laws, has been involved in deceptive or dishonest acts and is within five years of the date on which the judgment was made;
- ix. A person who is not a natural person; or
- x. Any other person who is otherwise not eligible under laws or rules set out by the securities regulatory bodies or stock exchanges on which Shares of the Company are listed.

The validity of an act of the Directors or senior management on behalf of our Company to bona fide third parties shall not be affected by any irregularities in their appointment, election or qualifications.

**(9) Borrowing powers**

The Articles of Association do not contain any specific provision regarding the manner in which the Directors may exercise the right to borrow money or the manner in which such a right is given provided that the Board of Directors shall be entitled to develop proposals for our Company to issue bonds and to list its Shares, and that such bond issues must be approved by the Shareholders by a special resolution at the general Shareholders' meeting.

**(10) Duties**

The Directors, Supervisors and senior management shall bear the obligations of good faith and diligence towards our Company. In the event of violation of obligations owed to our Company by the Directors, Supervisors and senior management, we shall have the right to take the following measures in addition to various rights and remedial measures stipulated in legal and administrative regulations:

- i. Require related Directors, Supervisors or senior management to compensate our Company for losses sustained as a result of their neglect of duty;
- ii. Cancel any contract or transaction entered into between our Company and related Directors, Supervisors or senior management as well as any contract or transaction entered into between our Company and third person when the third person knew or should have known that the Directors, Supervisors or senior management acting on behalf of our Company violated their obligations owed to our Company;
- iii. Require the relevant Directors, Supervisors or senior management to turn over the proceeds obtained from the violation of their obligations;
- iv. Recover funds collected by the relevant Directors, Supervisors or senior management that should have been collected for our Company, including but not limited to commissions;
- v. Require the relevant Directors, Supervisors or senior management to return the interest earned or that may be earned from funds that should have been paid to our Company;
- vi. Require the Directors, Supervisors or senior management to return to the Company properties obtained from violation of their obligations through legal procedure and verdicts.

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## **APPENDIX VI      SUMMARY OF THE ARTICLES OF ASSOCIATION**

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When performing their duties, the Directors, Supervisors and senior management of the Company must comply with the principle of integrity and shall not put themselves in situations where their own interests may conflict with the obligations they have undertaken. This principle includes, without limitation, performing the following obligations:

- i. Acting honestly in the best interests of our Company as the starting point of any action;
- ii. Exercising powers within but not exceeding the scope of authority;
- iii. Exercising conferred discretionary powers personally without being manipulated by others; not transferring discretionary powers to other persons unless permitted by laws, administrative regulations or with the informed consent given in a general Shareholders' meeting;
- iv. Treating Shareholders of the same class equally and Shareholders of different classes fairly;
- v. Entering into contract, transaction or arrangement with our Company is not allowed, unless in line with the Articles of Association or otherwise by the approval of the general Shareholders' meeting with its full knowledge;
- vi. Seeking private gain using the properties of our Company in any manner is not allowed, unless agreed by the general Shareholders' meeting with its full knowledge;
- vii. Using one's position to take bribes or other illegal income is not allowed, nor is any form of embezzlement of our property, including, but not limited to, opportunities beneficial to our Company;
- viii. Accepting commissions associated with transactions of our Company is not allowed unless agreed by the general Shareholders' meeting with its full knowledge;
- ix. Compliance with the Articles of Association, faithfully execute one's duties and protect the Company's interests, and not to exploit one's position and power in the Company to advance one's own private interests;
- x. Unless agreed at the general Shareholders' meeting with its full knowledge, take advantage of position, take business opportunity which should have belonged to our Company for themselves or others, conduct business that is similar with our company by themselves or cooperating with others is not allowed, or competing with our Company in any manner is not allowed, either;
- xi. Misappropriation of our funds is not allowed, nor is depositing the assets or funds of our Company in an account opened in one's own name or other names;

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**APPENDIX VI      SUMMARY OF THE ARTICLES OF ASSOCIATION**

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- xii. Not to, in violation of the provisions of this Articles of Association, lend our Company's funds to any other person or provide security for our Company's shareholders or other persons with properties of our Company, without the consent of the general Shareholders' meeting or Board of Directors;
- xiii. Not to harm the interests of our Company through use of his/her connected relationship; and
- xiv. Disclosure of confidential information relating to our Company obtained during employment without the consent of the general Shareholders' meeting with its full knowledge; unless in the interest of our Company, using such information is also not allowed; however, under the following circumstances the information may be disclosed to a court or other competent government agencies as required by:
  - (i) The provisions of the law;
  - (ii) For the public interests;
  - (iii) The interests of the Directors, Supervisors or senior management.

The relevant personnel shall return the income obtained from violation of the above provisions to our Company and shall bear the liability of compensation if our Company suffers damage.

The Directors, Supervisors and senior management may not direct the following personnel or institutions ("related personnel") to do what they are prohibited from doing:

- i. Spouses or minor children of the Directors, Supervisors and senior management;
- ii. Trustors of the Directors, Supervisors and senior management or the persons mentioned in the preceding paragraph;
- iii. Partners of the Directors, Supervisors and senior management or persons mentioned in i and ii above;
- iv. Our Company under de facto control by the Directors, Supervisors and senior management individually or jointly with the persons or other directors, supervisors and senior management of companies mentioned in i, ii and iii above; and
- v. Directors, Supervisors or senior management of the controlled companies mentioned in the preceding paragraph.

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## **APPENDIX VI      SUMMARY OF THE ARTICLES OF ASSOCIATION**

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The good faith obligation of the Directors, Supervisors and senior management may not necessarily cease with the termination of their terms; their obligation to keep the trade secrets of our Company in confidence shall survive the termination of their terms. Other duties may continue for such period as fairness may require depending on the time lapse between the termination and the act concerned and any circumstance and condition under which the relationships between them and the Company are terminated.

Unless otherwise provided in the Articles of Association, liabilities of Directors, Supervisors and senior management arising from the violation of specific duties may be dissolved by informed general Shareholders' meeting.

Apart from the obligations set forth in related laws, administrative regulations or the Listing Rules, where the shares of the Company are listed, the Directors, Supervisors or senior management shall assume the following obligations for each of the Shareholders when exercising their rights and performing their responsibilities:

- i. They shall not cause our Company to operate beyond the scope of business indicated on our business license;
- ii. They shall sincerely take the best interests of our Company as the starting point of any action;
- iii. They may not deprive our Company of our assets in any manner, including, but not limited to, opportunities beneficial to our Company; and
- iv. They shall not deprive the Shareholders of personal rights and interests, including, but not limited to, the right to receive dividends and to vote, except for restructuring of our Company approved at the Shareholders' meeting pursuant to the provisions of the Articles of Association.

The Directors, Supervisors and senior management of the Company have the responsibility when exercising their rights or carrying out their obligations to act with the care, diligence and skill due from a reasonably prudent person under similar circumstances.

In the event of any loss caused to our Company as a result of violation of any laws, administrative rules and regulations, or Articles of Association by the Directors or senior management when performing their duties in our Company, the Shareholders holding 1% or more shares separately or jointly for over 180 consecutive days may submit a written request to the Board of Supervisors to file an action with the people's court. Where supervisors violate laws, administrative regulations or the Articles of Association in their duty performance and cause loss to our Company, the Shareholders may submit a written request to the Board of Directors to file an action with the people's court.

In the event that the Board of Supervisors or the Board of Directors refuse to file an action upon receipt of the Shareholders' written request specified in the preceding paragraph, or fail to file an action within 30 days upon receipt thereof, or in the event that the failure to immediately file an action in an emergency case will cause irreparable damage to the interests of our Company, the Shareholder(s) specified in the preceding paragraph may, in their own name, directly file an action to the court for the interest of our Company.

In the event of any other person infringes upon the legitimate rights and interests of our Company and causes losses thereto, the shareholder(s) specified in this Articles of Association may file an action with the competent court pursuant to the provisions of the preceding two paragraphs.

In the event of a Director or senior management person violates laws, administrative regulations or our Company's Articles of Association, thereby damaging the interests of the Shareholder(s), the Shareholder(s) may file an action with the court.

## **2      MODIFICATION OF THE ARTICLES OF ASSOCIATION**

Our Company may amend the Articles of Association based on the provisions of the laws, administrative regulations and Articles of Association.

Where the amendments to the Articles of Association passed by the general Shareholders' meetings need the examination and approval of the competent authorities, these amendments shall be submitted hereto for approval. Where the amendment of the Articles of Association involves registration, it shall be necessary to carry out the lawfully prescribed procedures for registration change.

## **3      VARIATION OF RIGHTS OF EXISTING SHARES OR CLASSIFIED SHARES**

Any plan of our Company of changing or abolishing the rights of a classified Shareholder is subject to the approval of the general Shareholders' meeting in the form of a special resolution and the approval of the affected classified Shareholders at a separately convened the Shareholders' meeting before it can be implemented.

The rights of a classified Shareholder shall be deemed as changed or abolished under the following circumstances:

- i.    Increase or decrease the number of the classified shares, or increase or decrease the number of classified shares with equal or more voting rights, distribution rights, other privileges than this type of classified shares;
- ii.   Convert all or part of the classified shares into other classes or convert another class of shares, partly or wholly, into the shares of such class or grant such conversion right;
- iii.   Remove or reduce the right of the classified shares to accrued dividends generated or rights to cumulative dividends;

- iv. Reduce or remove a dividend preference or a liquidation preference attached to shares of such class;
- v. Add, remove or reduce the right of the classified shares to convert share rights, options rights, voting rights, transfer rights, and pre-emptive rights, or the right to obtain the securities of our Company;
- vi. Remove or reduce the right of the classified shares to receive funds payable of our Company in specified currencies;
- vii. Create new classified shares entitled to equal or more voting rights, distribution rights, or other privileges than the classified shares;
- viii. Restrict the transfer or ownership of the classified shares or increase such restrictions;
- ix. Issue subscription or conversion rights for this or other classified shares;
- x. Increase the rights and privileges of other classes of shares;
- xi. The restructuring plan of our Company may constitute different classes of Shareholders to assume responsibilities disproportionately in restructuring; and
- xii. Amend or abolish clauses stipulated in our Articles of Association.

Whether or not the affected classified Shareholders have voting rights at the Shareholders' meeting, in the event of matters described above from ii through viii, xi to xii, they have voting rights at the classified Shareholders' meeting, but the Shareholders that have interests at stake shall have no voting rights at the classified Shareholders' meeting.

Shareholders that have interests at stake include:

- i. Where the Company makes an offer to all the Shareholders at the same ratio according to this Articles of Association or purchase their own shares through public transaction in the Stock Exchange, Shareholders that have interests at stake refer to controlling shareholders as defined in this Articles of Association;
- ii. Where our Company purchase its own shares through reaching an agreement outside the Stock Exchange and in accordance with the Articles of Association, Shareholders that have interests at stake shall mean the Shareholders who are relevant to such agreement;
- iii. In our Company's re-organisation plan, Shareholders that have interests at stake shall mean Shareholder who bear liability at a rate that is lower than other Shareholders in the same class or who hold different interests with other Shareholders in the same class.



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## **APPENDIX VI      SUMMARY OF THE ARTICLES OF ASSOCIATION**

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The resolution of the classified Shareholders' meeting shall be passed by votes representing more than two thirds of shareholding with voting rights attending the classified Shareholders' meeting.

When convening a classified Shareholders' meeting, 45 days before the meeting is convened, our Company shall send a written notice to inform all registered holders of the classified shares on matters to be deliberated at the meeting, as well as the date and venue of the meeting. Shareholders planning to attend the meeting shall send our Company a written reply concerning attendance at the meeting 20 days before the meeting.

In the event that the number of shares with voting power represented by Shareholders planning to attend the meeting accounts for more than one half of the total number of said classified shares with voting power at the meeting, our Company may convene a classified Shareholders' meeting. If this number is not reached, our Company shall again inform the Shareholders of the matters to be deliberated as well as the date and venue of the meeting within five days in the form of an announcement and our Company may convene a classified Shareholders' meeting once the announcement is delivered.

Where there are special rules in the listing rules of the stock exchange where the shares are listed, the special rules prevail. The notice of the classified Shareholders' meeting needs only to be sent to the Shareholders who have the right to vote at the meeting.

The special rules mentioned in the above paragraph generally refers to the more detailed and adjusted provisions in the laws, regulations or the listing rules where the shares are listed in the future.

Insofar as possible, any classified Shareholders' meeting shall be held in accordance with the same procedures as those of the Shareholders' meeting, and unless otherwise provided in the Articles of Association, any clause that relates to the procedures for convening the Shareholders' meeting in the Articles of Association shall apply to classified Shareholders' meeting.

Classified Shareholders are the Shareholders who hold different classes of shares, including Shareholders of Domestic Shares, Shareholders of Unlisted Foreign Shares and Shareholders of H Shares. The Shareholders of Domestic Shares and Unlisted Foreign Shares have the right to attend the class meeting for Domestic Shares and Unlisted Foreign Shares, and the Shareholders of H Shares have the right to attend the class meeting for H Shares.

Apart from the holders of other classified shares, the holders of Domestic Shares and the holders of Unlisted Foreign Shares are deemed as same classified Shareholders, while they are deemed as different classified Shareholders with the holders of overseas listed foreign shares.

The special procedures for voting by the classified Shareholders shall not apply under the following circumstances:

- i. Upon the approval by a special resolution at the general Shareholders' meeting, our Company either separately or concurrently issues Domestic Shares, Unlisted Foreign Shares and overseas listed foreign shares once every 12 months, and the number of those Domestic Shares, Unlisted Foreign Shares and overseas listed foreign shares to be issued shall not account for more than 20% of each of its outstanding shares;
- ii. The plan to issue Domestic Shares and overseas listed foreign shares upon the establishment of our Company is completed within 15 months of the date of approval by the securities regulatory authorities of the State Council; and
- iii. Upon the approval by the securities regulatory authorities of the State Council, the Domestic Shares and Unlisted Foreign Shares are converted into H shares and listed and traded on overseas market.

#### **4 SPECIAL RESOLUTIONS NEEDED TO BE ADOPTED BY ABSOLUTE MAJORITY VOTE**

The resolutions of the Shareholders' meeting shall be divided into ordinary resolutions and special resolutions.

An ordinary resolution may be adopted by a simple majority of the votes held by the Shareholders (including proxies of Shareholders) attending the general Shareholders' meeting.

A special resolution can be adopted by a two-thirds majority of the votes held by the Shareholders (including proxies of Shareholders) attending the general Shareholders' meeting.

#### **5 VOTING RIGHTS**

The ordinary Shareholders have the right to attend or appoint a proxy to attend and vote at the general Shareholders' meeting. When voting at the general Shareholders' meeting, the Shareholder (including proxy) may exercise his or her voting rights in accordance with the number of shares with voting power held with each share representing one vote.

General Shareholders' meeting adopt vote by hands or open ballot. When voting at a general Shareholders' meeting, Shareholders (including their proxies) who are entitled to two or more votes are not required to vote against or in favour with their total number of votes.

When the number of dissenting votes equals the number of supporting votes, regardless of voting by ballot or show of hands, the chairman of the meeting is entitled to one additional vote.

#### **6 RULES ON GENERAL SHAREHOLDERS' MEETINGS**

The general Shareholders' meetings are divided into annual general Shareholders' meetings and extraordinary general Shareholders' meetings. The annual general shareholders' meeting shall be convened once a year and be held within six months of the end of the previous fiscal year.

**7    ACCOUNTING AND AUDITS****(1)   Financial and accounting policies**

Our Company shall develop its financial accounting policies pursuant to laws, administrative rules and regulations, as well as PRC accounting standards developed by the competent department in charge of finance under the State Council.

The Board of Directors shall submit the financial reports to Shareholders, as required by the laws, administrative rules and regulations or directives promulgated by local governments and competent authorities to be prepared by our Company, at every annual general Shareholders' meetings.

Apart from the PRC accounting standards and regulations, the financial statements of our Company shall also conform to international accounting standards or the accounting standards of overseas areas where the shares are listed. In the event of any major discrepancy between the financial statements prepared in accordance with the two types of accounting standards, such difference must be provided in the notes to the financial statements. As to the distribution of after-tax profits of our Company in a fiscal year, the after-tax profits indicated on the two financial reports, whichever is lower shall prevail.

Our Company shall make its financial reports available at the Company for inspection by the Shareholders 20 days before the annual general Shareholders' meeting is convened. Each Shareholder is entitled to obtain one copy of the financial report.

Our Company shall send the financial reports to each of the holders of overseas listed foreign shares by postage-paid mail or by the manner (including publication on the Company's website or website designated by the Stock Exchange where the Company's shares are listed) as allowed by the stock exchange where our Company lists shares at least 21 days before the annual general Shareholders' meeting is convened and the recipient's address shall be the address as registered in the register of Shareholders.

The interim results or financial information published or disclosed by our Company shall at the same time be prepared in accordance with the PRC accounting standards, rules and regulations as well as international accounting standards or the accounting standards of the overseas area in which the shares are listed.

Our Company shall publish the financial reports twice in each accounting year. Interim financial reports shall be published within 60 days of the end of the first six months of a fiscal year, while the annual financial report shall be published within 120 days of the end of each accounting year.

**(2) Appointment and dismissal of accountants**

Our Company shall appoint an independent accounting firm that meets appropriate requirements of the relevant regulations of the PRC to be responsible for auditing its annual financial report and reviewing its other financial reports.

The first accounting firm of our Company can be appointed by the founding meeting before the first annual general Shareholders' meeting and the term of the appointment will expire at the close of the first annual general Shareholders' meeting. In event that the founding meeting does not exercise such power, the Board of Directors shall take it.

The term of the accounting firm appointed by our Company shall start at the close of such annual general Shareholders' meeting of the Company and continue until the close of the next annual general Shareholders' meeting.

If the position of an appointed accounting firm is vacant, the Board of Directors may appoint an accounting firm before the start of general Shareholders' meeting. However, if during the vacant period, our Company has other incumbent accounting firm, such accounting firm may take the vacant.

Except the circumstances as above said, our Company shall appoint an accounting firm by the decision of the Shareholders' meeting. The Board of Directors shall not appoint accounting firm before decisions made at Shareholders' meeting. The Shareholders may replace the accounting firm through an ordinary resolution at the general Shareholders' meeting prior to the expiration of the term of any accounting firm notwithstanding the terms and conditions of the contract howsoever entered into between our Company and the accounting firm. With respect to the compensation rights against the Company by the relevant accounting firm due to dismissal shall not be affected thereof.

**8 NOTICE AND AGENDA OF GENERAL SHAREHOLDERS' MEETINGS**

The general Shareholders' meeting is the authorised organ of our Company that performs duties and exercises powers in accordance with the law.

Apart from unusual circumstances such as where our Company is in crisis, without the approval of a special resolution of the general Shareholders' meeting, our Company shall not enter into a contract with any person other than the Directors, Supervisors and senior management that would make a person responsible for the management of all or part of the major business of our Company.

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## **APPENDIX VI      SUMMARY OF THE ARTICLES OF ASSOCIATION**

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Under any of the following circumstances, the Board of Directors shall convene an extraordinary general Shareholders' meeting within two months:

- i. The number of Directors is less than the number specified in the PRC Company Law or less than two thirds of the number required in the Articles of Association;
- ii. The uncovered losses of our Company reach one-third of its total paid-in share capital;
- iii. The Shareholders with 10% or more shares of the Company separately or jointly request to convene an extraordinary general Shareholders' meeting in writing;
- iv. The Board of Directors considers it necessary;
- v. The Board of Supervisors considers it necessary; or
- vi. Any other circumstances stipulated in laws, administrative regulations, regulations of the competent authorities and the Articles of Association.

Independent non-executive Directors and the Board of Supervisors may make a proposal to the Board of Directors about convening an extraordinary general Shareholders' meeting. The Board of Directors shall issue a written feedback about whether it agrees with such proposal or not within 10 days after receiving such proposal in accordance with laws, administrative regulations and the Articles of Association.

In the event that the Board of Director agree to convene an extraordinary general Shareholders' meeting, the notice of convening extraordinary general Shareholders' meeting shall be issued within 5 days after the Board of Directors made a resolution. With regard to the proposal of convening an extraordinary general Shareholders' meeting made by the independent non-executive Director, the Board of Directors shall explain the reasons and announce if rejection was made.

With regard to the proposal of convening an extraordinary general Shareholders' meeting made by the Board of Supervisors, if the Board of Directors made a rejection or does not respond within 10 days after it receiving the proposal, it shall be view as the Board of Directors is unable to or fails to perform its meeting duty of convening the general Shareholders' meeting and the Board of Supervisors may convene and preside over the meeting by its own.

In the event that the general shareholders' meeting is convened, the Board of Directors, the Board of Supervisors and shareholders who separately or jointly hold more than 3% of the shares of our Company may submit a proposal.

When convening a general shareholders' meeting, our Company shall send a written notice to inform all registered shareholders of the matters to be deliberated at the meeting as well as the date and venue of the meeting 45 days before it is convened. Shareholders planning to attend shall send to our Company a written reply of the meeting 20 days before the meeting is held.

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## APPENDIX VI      SUMMARY OF THE ARTICLES OF ASSOCIATION

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Our Company shall calculate the number of shares with voting power represented by the shareholders planning to attend the general shareholders' meeting in accordance with the written replies received 20 days before the meeting is convened. In the event that the number of shares with voting power represented by the shareholders attending the meeting reaches more than one half of our total number of shares with voting power, our Company may convene the general shareholders' meeting. If this number is not reached, our Company shall again inform the shareholders of the matters to be deliberated and the date and venue of the meeting within five days in the form of an announcement and then approved by announcement before the general shareholders' meeting may be convened. The extraordinary general Shareholders' meeting shall not decide on issues which are not listed in the notice.

The notice of the general shareholders' meeting shall include the following contents:

- i. Be made in writing;
- ii. Specify the place, the date and the hour of the meeting;
- iii. State the matters to be discussed at the meeting;
- iv. List out the share registration date of shareholders who are entitled to attend the general shareholders' meeting;
- v. Provide the shareholders with such information and explanations as are necessary for the shareholders to exercise an informed judgment on the proposals before them. It principally includes (but is not limited to), where a proposal is made to amalgamate the Company, to repurchase shares, to reorganize the share capital or to restructure our Company in any other way, the conditions of the proposed transaction must be provided in detail together with the proposed contract (if any), and the cause and consequence of such proposal must be properly explained;
- vi. Contain a disclosure of the nature and extent, if any, of the material interests of any Director, Supervisor, senior management in the transaction proposed and the effect of the proposed transaction on such Director, Supervisor, or senior management in their capacity as shareholders in so far as it is different from the effect on the interests of the shareholders of the same class;
- vii. Contain the full text of any special resolution proposed to be voted at the meeting;
- viii. Contain conspicuously a statement that a shareholder entitled to attend and vote is entitled to appoint one or more proxies to attend and vote instead of him and that a proxy need not be a shareholder;
- ix. Specify the time and place for lodging proxy forms for the relevant meeting; and
- x. Contain the names and phone numbers of the long-term contact persons for the meeting.

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## **APPENDIX VI            SUMMARY OF THE ARTICLES OF ASSOCIATION**

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The notice of the general shareholders' meeting shall be sent in person or by postage-paid mail to the shareholders (regardless of whether such shareholders have the right to vote at the shareholders' meeting), whereas recipient's address shall be according to the address registered with the register of shareholders or subject to applicable laws, regulations and listing rules, post such information at our Company website or a site specified by the stock exchange of the place in which our Company's shares are listed. For domestic shareholders and the holders of Unlisted Foreign Shares, the notice of our shareholders' meeting may be given in the form of an announcement.

Abovementioned announcement shall be published in one or more newspapers designated by the securities governing authority of the State Council within a period of 45 to 50 days before the meeting is convened. Once the announcement is made, all domestic shareholders and the holders of Unlisted Foreign Shares shall be deemed to have received the notice of the general shareholders' meeting.

The resolution of the general shareholders' meeting includes ordinary resolution and special resolution. The following matters shall be approved by the general shareholders' meeting through ordinary resolutions:

- i. The business plan and investment plan of the Company;
- ii. Appointment or dismissal of the members of the Board of Directors, and payment methods of Directors;
- iii. Appointment or dismissal of the members of the Board of Supervisors as Supervisors who are not assumed by staff representatives, and payment methods of the Supervisors;
- iv. Work report of the Board of Directors;
- v. Work report of the Board of Supervisors;
- vi. Annual financial budget plans and final account plans;
- vii. Plans of earnings distribution and loss make-up schemes;
- viii. Appointment and Dismissal of Accountants;
- ix. Any external guarantee other than those to be approved by the shareholders' general meeting through a special resolution in accordance with Articles of the Association;
- x. Alter the usage of raised funds; and
- xi. Other matters in addition to those approved by special resolution stipulated in the laws, administrative regulations, listing rules of the stock exchange where the shares are listed or the Articles of Association.

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## **APPENDIX VI      SUMMARY OF THE ARTICLES OF ASSOCIATION**

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The following matters shall be approved by special resolution at the general shareholders' meeting:

- i. the increase or decrease of the registered capital;
- ii. Division, merger, dissolution and liquidation of our Company and the change of form of our Company;
- iii. Plans of bond issuance, or other securities and listing of our Company;
- iv. Amendment of the Articles of Association;
- v. Substantial assets acquired or disposed of or guarantee granted for an amount exceeding 30% (including 30%) of the latest audited total assets of our Company within one year;
- vi. Share equity incentive plan;
- vii. Other matters as required by the laws, administrative regulations, listing rules of the stock exchange where the shares are listed and the Articles of Association, and as approved by ordinary resolution of the general shareholders' meeting which are believed could materially affect our Company and need to be approved by special resolution.

In the event that any resolution of the general Shareholders' meeting or resolution of the Board of Directors violates laws or administrative regulations, any shareholder is entitled to request the court to deem it as invalid.

In the event that the convening procedure or voting formula of the shareholders meeting or meeting of the Board of Directors violates any of laws, administrative regulations or the Articles of Association, or resolution of which violates the Articles of Association, any shareholder is entitled to ask the court to overturn within 60 days after the resolution was adopted.

### **9 SHARE TRANSFERS**

The shares of our Company holding by the promoters thereof shall not be transferred within one year of the date of establishment of our Company. The shares issued before the public issuance of shares by our Company shall not be transferred within one year of the date on which the stocks of our Company are listed and traded on a securities exchange.

The Directors, Supervisors, and senior management of our Company shall declare, to our Company, information on their holdings of the shares of our Company and the changes thereto. The shares transferrable by them during each year of their term of office shall not exceed 25 percent of their total holdings of the shares of our Company. The shares that they held in our Company shall not be transferred within one year of the date on which the stocks of our Company are listed and traded.



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## APPENDIX VI      SUMMARY OF THE ARTICLES OF ASSOCIATION

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Where a Director, Supervisor or senior management of our Company, or a shareholder who holds 5% or more of the shares of our Company sells the shares of our Company within six months of purchasing such shares, or repurchases the shares within six months of selling such shares, the gains therefrom shall belong to our Company, and the Board of Directors of our Company shall recover such gains.

Where the Board of Directors of our Company fails to take comply with the provisions of the preceding paragraph, the shareholders shall have the right to demand it to act within 30 days. Where the Board of directors of our Company fails to take action within the said time limit, the shareholders shall have the right to initiate, in their own name, a lawsuit directly in a people's court for the benefit of our Company.

Where the Board of Directors of our Company fails to obey the stipulations of the above paragraph, the directors who are accountable thereto shall be held jointly and severally liable pursuant to law.

With regard to the H Shares that capital of which has been full-paid, transfer without any limitation is allowed in accordance with the Articles of Association. However, unless meeting the following conditions, the Board of Directors may refuse to recognise any transfer document without giving any reason:

- i. Document that related to any share ownership or transfer documents that may affect the ownership of the shares shall be registered and shall pay to our Company corresponding fees (calculated per item of transfer document) or a higher fee required by the Board of Director, but such payment shall not exceed the maximum fee provided by the Stock Exchange of Hong Kong in its Listing Rules from time to time;
- ii. The transfer documents only involve H Shares listed in Hong Kong;
- iii. The stamp duty chargeable on the transfer documents has been paid;
- iv. The relevant share certificate, and upon the reasonable request of the Board of Directors, any evidence in relation to the right of the transferor to transfer the shares has been submitted;
- v. If the shares are to be transferred to joint holders, the number of the joint holders shall not exceed four;
- vi. Our Company does not have any lien on the relevant shares; and
- vii. The shares shall not be transferred to minors or the person who is insane or is found to be of unsound mind, or the person who is incapacity for civil conduct.

Respective parts of shareholder register's revision or rectification shall be subject to the laws of region where respective parts the revised or rectified shareholder register is stored. No change may be made to the information in the register of shareholders as a result of the share transfer within 30 days before the general shareholders' meeting is convened or within five days prior to the benchmark date on which our Company has decided to distribute dividends.

## **10   RIGHTS OF OUR COMPANY TO PURCHASE OUR OUTSTANDING ISSUED SHARES**

Under any of the following circumstances, our Company may submit to relevant competent authorities for approval to buy back our outstanding issued shares according to legal procedures with the approval of procedures stipulated in the Articles of Association:

- i.    Cancellation of the shares to reduce our Company's share capital;
- ii.   Merger with other companies which hold our shares;
- iii.   Granting shares to the staff of our Company as incentives;
- iv.   Requesting the Company to buy back its shares from shareholders who vote against any resolutions adopted at the general shareholders' meeting concerning the merger and division of the Company; or
- v.    Other circumstances as permitted by the laws, administrative regulations.

After approved by the State relevant competent authorities, our Company may buy back shares in any of the following ways:

- i.    Making a comprehensive buyback offer in the same proportion to all shareholders;
- ii.   Buying back shares through public trading on the securities exchange;
- iii.   Buying back shares by an agreement outside a stock exchange;
- iv.   In other ways approved by the relevant regulatory authorities.

Where our Company buys back the shares by an agreement outside a stock exchange, it shall obtain prior approval at the general shareholders' meeting pursuant to the Articles of Association. Likewise, subject to the prior approval of the general shareholders' meeting, our Company may cancel or amend the contract signed in the aforesaid manner or waive any of its rights in the contract.

The contract that buys back the shares includes (but is not limited to) an agreement that consents to undertake the obligation to buy back the shares and obtain the rights to buy them back.

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## APPENDIX VI      SUMMARY OF THE ARTICLES OF ASSOCIATION

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Our Company shall not transfer any contract that buys back the shares or any rights conferred under the contract.

Unless our Company has entered into the liquidation process, we must observe the following provisions for the buyback of issued shares:

- i. Where our Company buys back shares at book value, the funds shall be deducted from the book balance of our distributable earnings and the proceeds obtained from the issue of new shares to buy back the old shares.
- ii. Where our Company buys back the shares at a premium to the book value, the portion equivalent to book value shall be deducted from the book balance of our distributable earnings and the proceeds obtained from the issue of new shares made for the purpose of buying back of old shares, while the portion higher than book value shall be dealt with in the following manner:
  - (i) Where the shares bought back were issued at book value, the funds shall be deducted from the book balance of our distributable revenue;
  - (ii) Where the shares bought back were issued at a premium to the book value, the funds shall be deducted from the book balance of our distributable revenue and the proceeds obtained from the issue of new shares made for the purpose of buying back of old shares. However, the amount deducted from the proceeds obtained from the issue of new shares shall not exceed the total premium amount obtained when the shares bought back were issued or the amount in our premium account (or capital reserve account) when the old shares are bought back (including the premium amount of the issue of new shares).
- iii. The funds paid by our Company for the following purposes shall be expensed from our distributable earnings:
  - (i) To obtain the right to buy back the shares;
  - (ii) To modify contract to buy back the shares;
  - (iii) To release obligation of our Company under the share buyback contract.
- iv. After the total book value of the cancelled shares is deducted from our registered capital pursuant to the relevant provisions, the amount deducted from the distributable earnings for paying up the book value portion of the shares bought back shall be credited to our premium account (or capital reserve account).

**11    POWER FOR ANY SUBSIDIARY OF OUR COMPANY TO OWN SHARES IN ITS PARENT**

There are no provisions in the Articles of Association relating to ownership by subsidiary of our Company of shares in its parent.

**12    DIVIDEND AND OTHER DISTRIBUTION METHODS**

The Company may distribute dividends in the following manner(or adopt both ways simultaneously):

- i.    cash; or
- ii.   Stock.

A shareholder is entitled to receive interest with regard to payment of the shares which was paid before reminder notice. However, advance payment of the shares is not subject to any further dividend thereof.

Our Company shall appoint receiving agents on behalf of shareholders holding overseas listed foreign shares.

Receiving agents shall receive dividends and other payable funds that are distributed with respect to our overseas listed foreign shares for relevant shareholders. Receiving agents appointed by Our Company shall on behalf of shareholders of shares listed in Stock Exchange shall be a trust company registered under the Trustee Ordinance of Hong Kong.

After the shareholders' meeting of our Company make a resolution on dividends distribution plan, the Board of Directors shall complete the distribution within 2 months after the convening of the shareholders' meeting.

**13    SHAREHOLDER PROXIES**

Any shareholder who is entitled to attend and vote at general shareholders' meeting has the right to appoint one or more persons (who may not necessarily be shareholders) as his or her shareholder proxy to attend and vote at the meeting in his or her place. Pursuant to the authorisation of the shareholder, the proxy may exercise the following rights:

- i.    Speak for the shareholder at the general shareholders' meeting;
- ii.   Demand a poll individually or with others;
- iii.   Except otherwise provided by the applicable listing rules or other securities laws and regulations, exercise the right to vote by a show of hands or a poll, but the shareholder proxy may only exercise the right to vote by a poll when more than one proxy is appointed.

The proxy appointment shall be in writing and shall be signed by the appointor or a person duly authorised in writing. Where the appointor is a legal person, the stamp of the legal person shall be affixed, or signed by its Director or a duly authorised agent.

The power of attorney must be kept at the residential address or other location designated in the notice convening the meeting no later than 24 hours before the meeting at which the power of attorney is put to vote is convened or 24 hours before the designated time. If the power of attorney is signed by another person authorised by the appointor by means of power of attorney or other instrument of authorisation, the power of attorney or other instrument must be verified by a notary. The power of attorney or other instrument verified by the notary must be kept together with the power of attorney at our residential address or other location designated at the notice convening the meeting.

A legal person shareholder should attend the meeting by its legal representatives or persons authorised by Board of Directors or other decision-making authorities.

Any power of attorney form sent by the Board of Directors to the shareholder for appointing a shareholder proxy shall allow the shareholder, according to his or her free will, to instruct the proxy to vote and provide instructions separately for matters to be put to vote on each item on the meeting agenda. The power of attorney shall specify that the shareholder proxy may vote at his or her own discretion if the shareholder does not provide specific instructions.

The votes of the shareholder proxy given pursuant to the terms of the power of attorney shall remain valid notwithstanding the previous death, loss of capacity of the appointor or revocation of the proxy or of the authority under which the proxy was executed, or the transfer of the shares in respect of which the proxy is given, provided that our Company does not receive written notice concerning such matters before the related meeting is convened.

**14 REVIEW THE REGISTER OF SHAREHOLDERS AND OTHER RIGHTS OF SHAREHOLDERS**

Our Company shall make a register of shareholders in accordance with evidentiary documents provided by the securities registration authorities.

Pursuant to the understanding reached and agreement entered into between the competent agency in charge of securities of the PRC and the overseas securities regulatory authorities, our Company may keep the original register of the shareholders of the overseas listed foreign shares overseas and entrust an overseas entity to manage it. The original register of the shareholders of the overseas listed foreign shares listed in Hong Kong shall be kept in Hong Kong.

Our Company shall keep a copy of the register of the holders of the overseas listed foreign shares at our residential address. The overseas entrusted agency shall at all times maintain consistency between the original and copy of the register of the holders of the overseas listed foreign shares.

In case of inconsistency between the original and copy of the register of the holders of the overseas listed foreign shares, the original shall prevail.

Our Company must keep a complete register of shareholders. The register of Shareholders shall include the following:

- i. Register of shareholders kept at our residential address other than those specified in ii and iii below;
- ii. Register of the holders of our overseas listed foreign shares kept at the location of the stock exchange where such shares are listed; and
- iii. Register of shareholders kept in other locations according to the decision of the Board of Directors as required for the listing of the shares.

Different parts of the shareholders' register shall not overlap. The transfer of shares registered in a certain part of the register of shareholders shall not be registered elsewhere in the register of shareholders as long as the shares remain registered.

Any alteration or rectification to any part of the register of shareholders shall be made in accordance with the laws in the place where such part of the register of shareholders is maintained.

No change of the register of shareholders as a result of share transfer shall be made within 30 days before the general shareholders' meeting is convened or within five days prior to the record date on which our Company decides to pay dividends.

When our Company convenes the general shareholders' meeting, pays dividends, goes into liquidation or is involved in other actions that require the confirmation of identities, the Board of Directors shall fix a date as the equity registration date, upon expiration of which the shareholders whose names register on the register of shareholders shall be the shareholders entitled to relevant equity.

Any person who objects to the register of shareholders and requests to register his or her name (title) in the register of shareholders or to remove his or her name (title) from the register of shareholders may apply to the court with jurisdiction to amend the register of shareholders.

## **15 QUORUM OF GENERAL SHAREHOLDERS' MEETINGS**

In the event that the number of shares with voting power represented by the shareholders planning to attend the meeting reaches more than one half of the Company's total number of shares with voting power, our Company may convene the general shareholders' meeting. If this number is not reached, our Company shall again inform the shareholders of the matters to be deliberated and the date and venue of the meeting within five days in the form of an announcement. Our Company may convene a general shareholders' meeting once the announcement is delivered.

In the event that the number of shares with voting power represented by the shareholders at such meeting planning to attend reaches more than one half of our total number of classified shares with voting power at such meeting, our Company may convene the classified shareholders' meeting. If this number is not reached, our Company shall again inform the shareholders of the matters to be deliberated and the date and venue of the meeting within five days in the form of an announcement. Our Company may convene a classified shareholders' meeting once the announcement is delivered.

## **16 RESTRICTIONS ON RIGHTS OF CONTROLLING SHAREHOLDERS**

Apart from the obligations required in laws, administrative regulations, or the listing rules of the stock exchange on which our shares are listed, our Controlling Shareholders shall not make any decision that is detrimental to the interest of all or part of the shareholders on the following issues by exercising his or her shareholder voting rights:

- i. Releasing the Directors and Supervisors from the responsibility of acting honestly in the best interest of our Company;
- ii. Permitting the Directors and Supervisors (for their own or others' interests) to deprive our Company of assets in any form, including, but not limited to, any opportunity that is beneficial to our Company; and
- iii. Permitting the Directors and Supervisors (for their own or others' interests) to deprive other shareholders of their personal rights and interests, including, but not limited to, any distribution or voting right, but excluding the restructuring of the Company approved at the general shareholders' meeting pursuant to the Articles of Association.

**17    PROCEDURES FOR LIQUIDATION**

Under any of the following circumstances, our Company shall be lawfully dissolved and liquidated:

- i.    The term of business of our Company has expired;
- ii.   The general shareholders' meeting adopts a resolution to dissolve our Company;
- iii.   Our Company needs to be dissolved for the purpose of merger or division;
- iv.   Our Company is declared legally bankrupt as a result of failure to pay debts as they fall due;
- v.    The business license is revoked, or our Company is ordered to close or be eliminated according to applicable law;
- vi.   Where our Company encounters significant difficulties in business and management, continuous survival may be significantly detrimental to the interests of the shareholders, and the difficulties may not be overcome through other means, shareholders who hold more than 10% of all voting rights of the Company's shareholders may request the People's Court to dissolve the Company; or
- vii. Occurrence of any other trigger for dissolution stipulated in the Articles of Association.

Where our Company is dissolved due to the provisions set forth in i, ii, and vi above, the liquidation team shall be established within 15 days from the liquidation date to commence dissolution and the personnel of the liquidation team shall consist of the persons determined by the Directors or the general shareholders' meeting. In the event the liquidation team is not established to conduct liquidation during such period, the creditors can request the people's court to appoint relevant personnel to establish the liquidation team for liquidation. In the event that our Company is dissolved in accordance with the provisions set forth in iv above, the people's court shall organise the shareholders, related agencies and professionals to form the liquidation team pursuant to relevant provisions of the law.

If the Board of Directors decides to liquidate our Company (except where our Company is liquidated after declaring bankruptcy), the Board of Directors shall state in the notice of the general shareholders' meeting convened for this purpose that the Board of Directors has performed a comprehensive investigation of the status of our Company and believes that our Company is able to pay off all of our debts within 12 months of the commencement of the liquidation.

After the resolution to liquidate our Company is adopted by the general shareholders' meeting, the powers of the Board of Directors shall terminate immediately.



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## **APPENDIX VI      SUMMARY OF THE ARTICLES OF ASSOCIATION**

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In accordance with the instructions of the general shareholders' meeting, the liquidation team shall at least once a year report at the general shareholders' meeting on the income and expenditure of the liquidation team, progress of the business and liquidation of our Company, and submit a final report at the general shareholders' meeting upon completion of liquidation.

Within 10 days of the establishment of the liquidation team, the creditors shall be notified and an announcement shall be published in newspaper recognised the stock exchange where our Company listed within 60 days. The creditors shall declare their claims to the liquidation team within 30 days of the date on which the notice is received or 45 days of the date of announcement if the notice is not received.

Creditors who declare claims shall state relevant issues related to the claims and provide proofs. The liquidation team shall carry out registration of the claims. During the period for declaration of claims, the liquidation group shall not make any repayment to the creditors.

During the liquidation, our Company shall continue to exist, but shall not carry out business activities irrelevant to the liquidation. The property of our Company shall not be distributed to any shareholder before full payments have been made out of the property according to the aforesaid provision.

Upon liquidation for the purpose of company dissolution, in the event the liquidation team finds that, after taking stock of our Company's property and preparing the balance sheet and list of property, that the assets are insufficient to pay the debts, it shall immediately apply to the people's court to declare bankruptcy.

After our Company is declared bankrupt by ruling of the people's court, the liquidation team shall turn over matters regarding the liquidation to the people's court.

Upon closure of liquidation of our Company, the liquidation team shall prepare a liquidation report, income and expenditure statement and financial record during the liquidation period, which, after being verified by a China-registered accountant, shall be submitted to our general shareholders' meeting or the people's court for recognition. Within 30 days of the date of confirmation by the shareholders' meeting or people's court, the liquidation team shall submit the above-mentioned documents to our Company registration authority and apply for cancellation of our registration and publish an announcement on our termination.

**18 OTHER IMPORTANT PROVISIONS FOR OUR COMPANY OR THE SHAREHOLDERS****(1) General Provisions**

Our Company is a permanently existing joint stock limited company.

Our Company may invest in other limited liability companies or joint stock limited company, provided that except as otherwise provided by law, the liabilities of our Company to be invested in are limited to the amount of its capital contribution.

The Articles of Association regulate our Company's organisation and conduct guidance and is binding on our Company, the shareholders, Directors, Supervisors and senior management. Subject to no violation of the relevant provisions of the Articles of Association, shareholders may sue shareholders; shareholders may sue the Directors, Supervisors and senior management; shareholders may sue our Company, and our Company may sue shareholders.

The above said suing includes filing an action and applying for an arbitration with an arbitral institution.

**(2) Share and Transfer**

Our Company may increase stock capital by the following means:

- i. Issuing new shares to unspecified investors;
- ii. Placing new shares with existing shareholders;
- iii. Giving new shares to existing shareholders;
- iv. Converting the reserve funds into share capital;
- v. Other means approved by the laws, administrative regulations, regulations of the authorities.

Upon approval to increase our Company's capital via an issue of new shares according to the provisions of the Articles of Association, the matter shall be dealt with in accordance with the procedures of related laws and administrative regulations of the PRC.

Our Company may decrease our registered share capital and shall comply with the procedures stipulated in Company Law of the PRC, other related regulations and the Articles of Association.

If our Company decreases our registered capital, we shall prepare a balance sheet and a list of properties.

Our company shall notify creditors, publish an announcement, repay the debts or provide the corresponding guaranty when required by the creditors in accordance with Company Law of the PRC when undertaking reduction of the registered capital.

After our Company's reduction in capital, our registered capital may not be less than the statutory minimum amount.

Upon approval by the competent securities department of the State Council, our Company may issue shares to domestic and overseas investors.

For the purpose of the preceding paragraph, overseas investors shall refer to investors from foreign countries and Hong Kong, Macao or Taiwan region who subscribe for shares issued by our Company; domestic investors shall refer to investors within the territory of the PRC apart from above-mentioned region who subscribe for shares issued by our Company.

Upon approval by the competent securities department of the State Council, the Domestic Shares and Unlisted Foreign Shares of the Company can be converted into foreign shares which are listed overseas. After the conversion, these foreign shares can be listed and traded on the overseas stock exchange, in compliance with the regulatory procedures, provisions and requirements of overseas securities market.

### **(3) Shareholders**

The shareholders of our Company are persons lawfully holding the Company's shares and whose names (titles) are already listed in the register of shareholders. Shareholder is entitled to rights and assumes obligations pursuant to the classification and ratio of his or her shares. Shareholder holding the same classified share has the same rights and assumes the same obligations.

The rights of our ordinary shareholders are as follows:

- i. To receive distribution of dividends and other forms of benefits according to the number of shares held;
- ii. To legally require, convene, preside over, participate in or appoint a shareholder proxy to participate in and exercise corresponding voting rights at the Shareholders' meeting;
- iii. To supervise business and operational activities of our Company, provide suggestions or submit queries;
- iv. To transfer, grant and pledge the Company's shares held according to the provisions of the laws, administrative regulations, listing rule of the stock exchange where our stocks are listed and the Articles of Association;
- v. To obtain relevant information according to the provisions of the Articles of Association;

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## **APPENDIX VI      SUMMARY OF THE ARTICLES OF ASSOCIATION**

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- vi. To participate in the distribution of the remaining assets of our Company according to the proportion of shares held upon our termination or liquidation;
- vii. To ask our Company to acquire the shares from Shareholders voting against any resolutions adopted at the general Shareholders' meeting concerning the merger and division of the Company; and
- viii. Other rights conferred by laws, administrative regulations, department rules or the Articles of Association.

When any person is interested directly or indirectly in the shares of our Company, our Company shall not freeze or otherwise impair any of the rights attaching to any share by reason only that the person has not disclosed his interests to our Company.

The share certificates are signed by the chairman of the Board of Directors. Where the stock exchange on which our Company's shares are listed requires our other senior management to sign the share certificates, they shall also be signed by other such personnel. The share certificates shall become effective after being affixed with the stamp of our Company or print-stamped. Affixing our Company stamp to the share certificates is subject to the authorisation of the Board of Directors. The signature of legal representative of the Company or other related senior management may also be printed. Under conditions of paperless issuance and trading, the provisions of securities administrative authorities of the region where the Company's shares listed shall apply.

If any person whose name appears in the register of shareholders or requests to register his or her name (title) in the register of shareholders loses his or her share certificates (that is, "original share certificates"), he or she may apply to our Company to reissue new share certificates for those shares.

In the event holder of Domestic Shares and Unlisted Foreign Shares applies to our Company for a reissue after losing the share certificates, the matter shall be dealt with pursuant to related provisions of the Company Law.

In the event a holder of overseas listed foreign shares applies to our Company for a reissue after losing the share certificates, the matter may be dealt with pursuant to the laws, regulations and rules of the stock exchange where the original register of holders of the overseas listed foreign shares is kept, or other related provisions.

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## **APPENDIX VI      SUMMARY OF THE ARTICLES OF ASSOCIATION**

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If a H shareholder loses share certificates and applies to the Company for a replacement issue, the share certificates shall be issued in compliance with the following requirements:

- i. The applicant shall submit the application in the standard format designated by our Company and attach a notary certificate or legal declaration. The contents of the notary certificate or legal declaration shall include the reason for the applicant's request, circumstances and evidence of loss of share certificates, as well as a statement that nobody else may request to be registered as a shareholder with respect to the pertinent shares;
- ii. Before deciding to issue new share certificates, our Company does not receive any statement in which any person other than the applicant requests to be registered as the shareholder with respect to the shares;
- iii. If our Company decides to issue new share certificates to the applicant, we shall publish an announcement in newspapers designated by the Board of Directors indicating that we plan to reissue new share certificates. The announcement period shall be 90 days and the announcement shall be published at least once every 30 days;
- iv. Before publishing the announcement indicating that we plan to re-issue new share certificates, our Company shall submit a copy of the announcement to be published to the stock exchange on which the shares are listed and may publish the announcement after receiving a reply from the stock exchange confirming that the announcement has been displayed at the stock exchange. The period of displaying the announcement at the stock exchange is 90 days. If the registered shareholders of the related shares do not approve the application for reissue of new share certificates, our Company shall mail the copy of the announcement to be repeatedly published to the Shareholders;
- v. In the event that nobody raises any objection to the reissue of new share certificates to our Company, upon expiration of the 90-day display period of the announcement specified in iii and iv above, the new share certificates may be reissued according to the application made by the applicant;
- vi. When re-issuing new share certificates according to the Articles of Association, our Company shall immediately cancel the original share certificates and register the cancellation and replacement issue on the register of shareholders;
- vii. All expenses incurred by our Company from the cancellation of the original share certificates and replacement issue of the new share certificates shall be borne by the applicant. Before the applicant has provided reasonable security, our Company shall have the right to refuse to take any action.

**(4) Shareholders Failing to be Contacted**

In compliance with the provisions of related laws and regulations of the PRC, our Company may exercise expropriate right to unclaimed dividend. However, our Company can only exercise such right after the expiration of the applicable corresponding valid period which started after the distribution of dividend was declared.

Our Company may terminate sending dividend coupons by mail to any holder of the overseas listed foreign shares. However, the said termination can only be made after the holder fails to withdraw from the dividend coupons for consecutive two times or the dividend coupons cannot be delivered to the receiver and returned thereof.

In compliance with the conditions indicated below, Our Company disposed the stock held by overseas listed foreign shareholders whom we fail to contact in accordance with appropriate manner as considered by the Board of Directors:

- i. Our Company has paid dividends at least three times on these Shares within 12 years, but no one has claimed the dividends during that period;
- ii. Upon expiration of the 12-year period, our Company publishes an announcement in one or more newspaper of the Company's listing place, indicating our intention to sell the Shares and notifies the stock exchange where such Shares are listed of such intention.

**(5) The Board of Directors**

The Board of Directors is responsible to the general Shareholders' meeting and exercises the following powers:

- i. To convene the general Shareholders' meeting and report on work to the general Shareholders' meeting;
- ii. Implement the resolutions of the general Shareholders' meeting;
- iii. Determine the business and investment plans of our Company;
- iv. Devise the annual financial budget and closing account plans of our Company;
- v. Devise the earnings distribution and loss offset plans of our Company;
- vi. Formulate the plans for increasing or decreasing our Company's registered capital, the issuance of corporate bonds or other securities, as well as the listing of the stock of our Company;
- vii. Formulate plans for corporate merger, separation of our Company, changing the form and dissolution of our Company;

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## **APPENDIX VI      SUMMARY OF THE ARTICLES OF ASSOCIATION**

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- viii. Formulate plans for major acquisitions of the Company, the acquisition of shares of our Company;
- ix. Determine such matters as the Company's external investment, purchase or sale of assets, asset pledge, external guarantee, entrusting wealth management and connected transaction within the scope authorised by the general Shareholders' meeting;
- x. Decide on the setup of our Company's internal management organisation;
- xi. Decide on the establishment of special committees under the Board of Directors and appoint or dismiss the chairmen (convener) of the special committees under the Board of Directors;
- xii. Appoint or dismiss the general manager of our Company, the secretary of the Board of Directors and the Secretary of our Company; based on the nomination of the general manager, appoint or dismiss senior management of our Company such as vice manager, the chief financial officer, and determine their remuneration and punishment;
- xiii. Set the basic management systems of our Company;
- xiv. Make the modification plan to the Articles of Association;
- xv. Decide on the equity incentive scheme;
- xvi. Manage the disclosure of company information;
- xvii. Propose the appointment or replacement of the accounting firm that performs audits for our Company at the general Shareholders' meeting;
- xviii. Attend to the work report of our Company's general manager and review the work of the general manager;
- xix. Appoint or dismiss the non-employee representatives Directors and Supervisors of our wholly owned subsidiaries, recommend the candidates of the non-employee representatives Directors and Supervisors of our joint venture companies, and recommend the candidates of senior management of our subsidiaries.
- xx. Review and decide on external guarantees of our Company excluding those shall be approved by the general Shareholders' meeting pursuant to the Articles of Association;
- xxi. Other powers and duties authorised by the laws, administrative regulations, regulations of the authorities, listing rules of the place where the shares of our Company are listed and the Articles of Association as well as the general Shareholders' meeting.

The aforesaid matters that can be exercised by the Board of Directors, or other transactions or arrangements, if according to the listing rules of the stock exchange where the shares of our Company are listed, shall be considered by the general Shareholders' meeting, and submitted to the general Shareholders' meeting for consideration.

The above resolutions adopted by the Board of Directors, except those in vi, vii and xiv must be approved by more than a two-thirds vote of the Directors, may be approved by more than half of the votes by the Directors.

Meetings of the Board of Directors shall be attended by more than one-half of the Directors (including proxies) before the Board of Directors meeting can be convened.

**(6) Independent Non-executive Director**

At least one-third of member of the Board of Directors of the Company shall be the independent non-executive Directors and the amount shall not be less than three. At least one independent non-executive Director shall have applicable professional qualification or are equipped with applicable accounting or relevant financial management expertise. At least one independent non-executive Director usually resides in Hong Kong.

**(7) Secretary of the Board of Directors**

Our Company shall have one secretary of the Board of Directors. The secretary of the Board of Directors must be a natural person with the requisite expertise and experience and be appointed by the Board of Directors.

**(8) Board of Supervisors**

Our Company shall set up a Board of Supervisors.

The Board of Supervisors consists of three Supervisors and includes one chairman. The chairman of the Board of Supervisors shall be elected and dismissed by more than a two-thirds vote of the members of the Board of Supervisors.

The Board of Supervisors shall consist of Shareholder's representatives and employee's representatives which account for no less than one-third of the Board of Supervisors of our Company. The Supervisors assumed by the employee representatives shall be elected and dismissed democratically by the employees.

Meetings of the Board of Supervisors shall be attended by more than half of the Supervisors before it may be convened. Resolutions of the Board of Supervisors shall require approval from two-third of all the Supervisors. The Supervisors serve three-year terms.

The Supervisors may, after the expiration of the term of office, be re-elected and re-appointed.



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The Directors and senior management shall not also serve as Supervisors.

The Board of Supervisors is responsible to the general Shareholders' meeting and lawfully exercises the following powers:

- i. Examine the financial standing of our Company;
- ii. Supervise the Company's duties performing of Directors and senior management so as to ensure that said Directors and senior management shall not act in violation of any laws, administrative regulations or the Articles of Association of the Company when performing their duties, and put forward suggestions for dismissing any Directors or senior management who are in breach of the laws, administrative regulations, the Articles of Association or resolutions of the general Shareholders' meetings;
- iii. Require the Directors and senior management to take corrective measures when their actions are detrimental to the Company's interests;
- iv. Verify the financial information such as the financial reports, business reports and profit distribution plans to be submitted by the Board to the general Shareholders' meetings and, should any queries arise, to authorize, in the name of our Company, a re-examination by the certified public accountants and practising auditors;
- v. Propose to convene an extraordinary general Shareholders' meeting, where the Board of Directors fails to perform the duties in relation to convening or presiding over the general Shareholders' meeting, to convene and preside over the general Shareholders' meeting;
- vi. Submit proposals at the general Shareholders' meetings;
- vii. Propose to convene extraordinary meetings of the Board of Directors;
- viii. Represent our Company in bringing actions against the Directors and senior management in accordance with Company Law;
- ix. Investigate into any abnormalities in operation of our Company; if necessary, to engage accounting firms, law firms and other professional institutions to assist its work, and the expenses shall be borne by our Company;
- x. Other powers and duties stipulated in the Articles of Association.

The Supervisors may attend the meetings of the Board of Directors, query or provide suggestions on the resolution matters of the Board meeting.

**(9) General Manager**

Our Company has one general manager, appointed or dismissed by the Board of Directors. The general manager of our Company is responsible to the Board of Directors and exercises the following powers:

- i. Be in charge of the producing and operational management of our Company and report to the Board of Directors on work;
- ii. To organise the enforcement of resolutions of the Board of Directors;
- iii. Organise the implementation of the annual operation plans and investment schemes decided by the Board of Directors;
- iv. Formulate the structure scheme of the internal management agency of our Company;
- v. Formulate the fundamental management system of our Company;
- vi. Formulate the rules and policies of our Company;
- vii. Propose the appointment or dismissal of the Company's vice general manager, financial officer to the Board of Directors;
- viii. Appoint or dismiss other management personnel except those who shall be appointed or dismissed by the Board of Directors;
- ix. Other responsibilities authorised by the Articles of Association and the Board of Directors.

**(10) Reserves**

When the annual after-tax earnings of our Company are distributed, our Company must allocate 10% of the earnings to the statutory reserve of the Company.

When the total amount of the statutory reserve exceeds 50% of our Company's registered capital, no more allocations need to be provided.

If the Company's statutory reserve is insufficient to offset our losses during the previous year, the earnings generated during the current year must be used to make up the losses before allocating the statutory reserve in accordance with the requirements set forth above.

After allocation to the statutory reserve from the after-tax earnings of our Company, we may also allocate to the reserves at will from after-tax earnings in line with the resolution(s) adopted at the general Shareholders' meeting.

After our Company has made up for its losses and made allocations to its statutory reserve fund, the remaining profits are distributed in proportion to the number of shares held by the Shareholders, unless otherwise specified by the Articles of Association.

If the general Shareholders' meeting or the Board of Directors violates the above provisions and profits are distributed to the Shareholders before the Company makes up for losses or makes allocations to the statutory reserve fund, the profits distributed in violation of the provisions must be returned by such Shareholders to the Company.

The shares held by our Company itself shall not be subject to profit distribution.

The Company's reserves must be used only for offsetting losses of the Company, expanding the scale of business and operations or for conversion into capital to increase our capital, but the capital reserve shall not be used to offset losses of the Company.

Where the statutory reserve converses into capital, the remaining statutory reserve shall not be less than 25% of the registered capital of our Company before such conversion.

#### **(11) Settlement of Disputes**

Our Company shall comply with the following rules governing the settlement of disputes:

- i. Whenever there occur any dispute or claim between (i) our Company and its Directors or other senior management and (ii) shareholders of the overseas listed foreign Shares and our Company, shareholders of the overseas listed foreign Shares and our Company's Directors, Supervisors, general manager or other senior management, or shareholders of the overseas listed foreign Shares and shareholders of Domestic Shares or the holders of Unlisted Foreign Shares regarding the rights or obligations relating to the affairs of our Company conferred or imposed by the Articles of Association, the Company Law or any other relevant laws and administrative regulations, such disputes or claims shall be referred by the relevant parties to arbitration.

Where the aforesaid dispute or claim of rights is referred to arbitration, the entire claim or the dispute as a whole must be referred to arbitration, and any parties who have a cause of action based on the same facts giving rise to the dispute or the claim or whose participation is necessary for the settlement of such dispute or claim, are bound by the award of the arbitration provided that such person is our Company or a shareholder of our Company, a Director, a Supervisor, general manager or other senior management.

Disputes in relation to the definition of shareholders and disputes in relation to the shareholders' register need not be resolved by arbitration;

- ii. A claimant may elect for arbitration at either the China International Economic and Trade Arbitration Commission in accordance with its rules or the Hong Kong International Arbitration Centre in accordance with its arbitration rules. Once a claimant refers a dispute or claim to arbitration, the other party must submit to the arbitral body so elected by the applicants.

If a claimant elects for arbitration at HKIAC, any party to the dispute or claim may request the arbitration to be conducted in Shenzhen in accordance with the Securities Arbitration Rules of the HKIAC;

- iii. The laws of the PRC are applicable to the arbitration for the disputes or claims of rights referred to in paragraph (i) above, unless otherwise provided in the laws and administrative regulations;
- iv. The award of an arbitration body shall be final and binding on all parties.

**A. FURTHER INFORMATION ABOUT OUR COMPANY****1. Incorporation**

Our Company was incorporated as a foreign-invested enterprise in the PRC on January 13, 2009 and converted into a joint stock company with limited liability on February 13, 2017. Our registered address is currently at 401-420, 4th Floor, Biomedical Park, 185 South Ave., TEDA West District, Tianjin, PRC.

Our Company has established a principal place of business in Hong Kong at Room 1901, 19/F, Lee Garden One, 33 Hysan Avenue, Causeway Bay, Hong Kong and has been registered with the Hong Kong Companies Registry as a non-Hong Kong company in Hong Kong under Part 16 of the Companies Ordinance on July 23, 2018. Mr. Ming King Chiu (趙明璟) of Vistra Corporate Services (HK) Limited has been appointed as our agent for the acceptance of service of process in Hong Kong. As our Company was established in the PRC, its corporate structure and Articles of Association are subject to the relevant laws and regulations of the PRC. A summary of the relevant provisions of the Articles of Association of our Company is set out in Appendix VI to this Prospectus. A summary of certain relevant aspects of the laws and regulations of the PRC and Hong Kong is set out in Appendix V to this Prospectus.

**2. Changes in Share Capital of Our Company**

See the section headed “History and Development – Major Shareholding Changes of Our Company.”

**3. Written Resolutions Passed by Our Shareholders on June 22, 2018**

At the extraordinary general meeting of our Company held on June 22, 2018, among other things, the following resolutions were passed by the Shareholders:

- (a) our H Shares to be listed on the Stock Exchange be issued;
- (b) the listing of the H Shares converted from the Foreign Shares held by the holders of such Shares;
- (c) subject to the completion of the Global Offering, the Articles of Association has been approved and adopted, which shall only become effective on the Listing Date, and the Board has been authorized to amend the Articles of Association in accordance with any comments from the Stock Exchange and the relevant PRC regulatory authorities; and
- (d) authorizing the Board to handle all relevant matters relating to, among other things, the implementation of issuance of H Shares and the Listing.

**B. FURTHER INFORMATION ABOUT OUR BUSINESS****1. Summary of Material Contracts**

We have entered into the following contracts (not being contracts entered into in the ordinary course of business) within two years preceding the date of this Prospectus which are or may be material:

- (a) the share subscription agreement dated April 12, 2017 (“**Round 5 Investment Agreement**”), in relation to the issue and subscription of 26,566,009 Shares at a total consideration of RMB450,000,000, entered into between our Company, Future Industry Investment Fund (Limited Partnership) (先進製造產業投資基金(有限合夥)), Jinshi Yikang Equity Investment (Hangzhou) Partnership (Limited Partnership) (金石翊康股權投資(杭州)合夥企業(有限合夥)), CITIC Securities Investment Co., Ltd. (中信證券投資有限公司), QM29 Limited, Suzhou Qiming Rongxin Equity Investment Partnership (Limited Partnership) (蘇州啟明融信股權投資合夥企業(有限合夥)), Suzhou Industrial Park Qiming Rongchuang Equity Investment Partnership (Limited Partnership) (蘇州工業園區啟明融創股權投資合夥企業(有限合夥)), Shenzhen Dachen Chuanglian Equity Investment Fund Partnership (Limited Partnership) (深圳市達晨創聯股權投資基金合夥企業(有限合夥)), Suzhou Litai Venture Capital Investment Center (Limited Partnership) (蘇州禮泰創業投資中心(有限合夥)), Lilly Asia Ventures III Investment (Hong Kong) Co., Limited, LAV Bio III Investment (Hong Kong) Co., Limited, Shanghai Gopher Yaoren Investment Center (Limited Partnership) (上海歌斐鑰韜投資中心(有限合夥)), Shanghai Gopher Hongben Investment Center (Limited Partnership) (上海歌斐鴻本投資中心(有限合夥)), Suzhou Zhongxin Chuangxin Investment Management Co., Ltd. (蘇州中鑫創新投資管理有限公司), Tianjin Heyue Guyu Equity Investment Fund Partnership (Limited Partnership) (天津和悅谷雨股權投資基金合夥企業(有限合夥)) and Shanghai Huiqiu Investment Co., Ltd. (上海慧秋投資有限公司);
- (b) the supplemental agreement (第五輪股份認購補充協議書) dated April 12, 2017 (“**First Supplemental Agreement**”) to the Round 5 Investment Agreement, entered into between our Company, Dr. Yu, Dr. Zhu, Dr. Qiu, Dr. Mao, Jianfa Liu (劉建法), Xuan Liu (劉宣), Jianxi Du (杜建喜), Zhongqi Shao, Tianjin Qianyi Enterprise Management Partnership (Limited Partnership) (天津千益企業管理合夥企業(有限合夥)), Suzhou Huyanglin Venture Capital Center (Limited Partnership) (蘇州胡楊林創業投資中心(有限合夥)), Shanghai Nuoqianjin Venture Capital Investment Center (Limited Partnership) (上海諾千金創業投資中心(有限合夥)), LAV Spring (Hong Kong) Co., Limited, Shanghai Li'an Venture Capital Investment Center (Limited Partnership) (上海禮安創業投資中心(有限合夥)), Shanghai Licheng Investment Development Co., Ltd. (上海勵誠投資發展有限公司), Tianjin Heyue Guyu Equity Investment Fund Partnership (Limited Partnership) (天津和悅谷雨股權投資基金合夥企業(有限合夥)), QM29 Limited, Suzhou Litai Venture Capital Investment Center (Limited Partnership) (蘇州禮泰創業投資中心(有限合夥)), Lilly Asia Ventures III Investment (Hong Kong) Co., Limited, LAV Bio III Investment (Hong Kong) Co., Limited, Shanghai Huiqiu Investment Co., Ltd. (上海慧秋投資有限公司), Jiaxing Huiguang Equity Investment Fund Partnership (Limited Partnership) (嘉興慧光股權投資基金合夥企業(有限合夥)), Future Industry Investment Fund (Limited Partnership) (先進製造產業投資基金(有限合夥)), Jinshi Yikang Equity Investment (Hangzhou) Partnership (Limited Partnership) (金石翊康股權投資(杭州)合夥企業(有限合夥)), CITIC Securities Investment Co., Ltd. (中信證券投資有限公司), Suzhou Zhongxin Chuangxin Investment Management Co.,

Ltd. (蘇州中鑫創新投資管理有限公司), Shenzhen Dachen Chuanglian Equity Investment Fund Partnership (Limited Partnership) (深圳市達晨創聯股權投資基金合夥企業(有限合夥)), Shanghai Gopher Yaoren Investment Center (Limited Partnership) (上海歌斐鑰韜投資中心(有限合夥)), Shanghai Gopher Hongben Investment Center (Limited Partnership) (上海歌斐鴻本投資中心(有限合夥)), Suzhou Qiming Rongxin Equity Investment Partnership (Limited Partnership) (蘇州啟明融信股權投資合夥企業(有限合夥)) and Suzhou Industrial Park Qiming Rongchuang Equity Investment Partnership (Limited Partnership) (蘇州工業園區啟明融創股權投資合夥企業(有限合夥));

- (c) the capital increase agreement dated May 28, 2018, in relation to the issue and subscription of 4,506,625 Shares at a total consideration of RMB17,485,705, entered into between our Company, Tianjin Qianrui Enterprise Management Partnership (Limited Partnership) (天津千睿企業管理合夥企業(有限合夥)) and Tianjin Qianzhi Enterprise Management Partnership (Limited Partnership) (天津千智企業管理合夥企業(有限合夥));
- (d) the 2018 supplemental agreement (第五輪股份認購補充協議書之2018年補充協議) to the First Supplemental Agreement dated May 31, 2018 entered into between our Company, Dr. Yu, Dr. Zhu, Dr. Qiu, Dr. Mao, Jianfa Liu (劉建法), Xuan Liu (劉宣), Jianxi Du (杜建喜), Zhongqi Shao, Tianjin Qianyi Enterprise Management Partnership (Limited Partnership) (天津千益企業管理合夥企業(有限合夥)), Suzhou Huyanglin Venture Capital Center (Limited Partnership) (蘇州胡楊林創業投資中心(有限合夥)), Shanghai Nuoqianjin Venture Capital Investment Center (Limited Partnership) (上海諾千金創業投資中心(有限合夥)), LAV Spring (Hong Kong) Co., Limited, Shanghai Li'an Venture Capital Investment Center (Limited Partnership) (上海禮安創業投資中心(有限合夥)), Shanghai Licheng Investment Development Co., Ltd. (上海勵誠投資發展有限公司), Tianjin Heyue Guyu Equity Investment Fund Partnership (Limited Partnership) (天津和悅谷雨股權投資基金合夥企業(有限合夥)), QM29 Limited, Suzhou Litai Venture Capital Investment Center (Limited Partnership) (蘇州禮泰創業投資中心(有限合夥)), Lilly Asia Ventures III Investment (Hong Kong) Co., Limited, LAV Bio III Investment (Hong Kong) Co., Limited, Shanghai Huiqiu Investment Co., Ltd. (上海慧秋投資有限公司), Jiaxing Huiguang Equity Investment Fund Partnership (Limited Partnership) (嘉興慧光股權投資基金合夥企業(有限合夥)), Future Industry Investment Fund (Limited Partnership) (先進製造產業投資基金(有限合夥)), Jinshi Yikang Equity Investment (Hangzhou) Partnership (Limited Partnership) (金石翊康股權投資(杭州)合夥企業(有限合夥)), CITIC Securities Investment Co., Ltd. (中信證券投資有限公司), Suzhou Industrial Park Zhongxin Hengxiang Investment Center (Limited Partnership) (蘇州工業園區中鑫恒祥投資中心(有限合夥)), Shenzhen Dachen Chuanglian Equity Investment Fund Partnership (Limited Partnership) (深圳市達晨創聯股權投資基金合夥企業(有限合夥)), Shanghai Gopher Yaoren Investment Center (Limited Partnership) (上海歌斐鑰韜投資中心(有限合夥)), Shanghai Gopher Hongben Investment Center (Limited Partnership) (上海歌斐鴻本投資中心(有限合夥)), Suzhou Qiming Rongxin Equity Investment Partnership (Limited Partnership) (蘇州啟明融信股權投資合夥企業(有限合夥)) and Suzhou Industrial Park Qiming Rongchuang Equity Investment Partnership (Limited Partnership) (蘇州工業園區啟明融創股權投資合夥企業(有限合夥));
- (e) the cornerstone investment agreement dated March 14, 2019 entered into between the Company, Morgan Stanley Asia Limited, CLSA Capital Markets Limited, CLSA Limited and LAV Amber Limited, pursuant to which LAV Amber Limited has agreed to subscribe for 3,567,200 Offer Shares at the Offer Price;







- (f) the cornerstone investment agreement dated March 14, 2019 entered into between the Company, Morgan Stanley Asia Limited, CLSA Capital Markets Limited, CLSA Limited, Worldwide Healthcare Trust PLC and The Biotech Growth Trust PLC, pursuant to which Worldwide Healthcare Trust PLC and The Biotech Growth Trust PLC have agreed to subscribe for the Offer Shares in the aggregate amount of US\$19,390,000 and US\$5,610,000, respectively, at the Offer Price;
- (g) the cornerstone investment agreement dated March 14, 2019 entered into between the Company, Morgan Stanley Asia Limited, CLSA Capital Markets Limited, CLSA Limited, ICBC International Capital Limited and Tsinlien Zhuo Rui Investment Co., Limited, pursuant to which Tsinlien Zhuo Rui Investment Co., Limited has agreed to subscribe for the Offer Shares in the aggregate amount of US\$10,000,000 at the Offer Price; and
- (h) the Hong Kong Underwriting Agreement.

## 2. Our Intellectual Property Rights

### (a) Trademarks

As at the Latest Practicable Date, our Company has registered the following trademarks in the PRC, which we consider to be or may be material to our business:

No.	Trademark	Registration number	Registrant	Class	Place of registration	Expiry date
1	<b>CANSINO BIO</b>	15896360	Our Company	5	China	March 13, 2026
2	<b>CANSINOTECH</b>	15896359	Our Company	5	China	March 13, 2026
3	康希诺生物	13825462	Our Company	5	China	February 13, 2025
4	康希诺生物	13825461	Our Company	35	China	February 27, 2025
5	康希诺生物	13825460	Our Company	42	China	February 13, 2025
6		17224044	Our Company	40	China	August 27, 2026
7		17224043	Our Company	42	China	October 27, 2026
8		17224045	Our Company	35	China	August 27, 2026
9		17224046	Our Company	5	China	August 27, 2026
10	<b>Resonant</b> Biopharma Inc	17224047	Our Company	35	China	August 27, 2026



As of the Latest Practicable Date, our Company has registered the following trademarks in Hong Kong, which we consider to be or may be material to our business:

No.	Trademark	Registration number	Registrant	Class	Place of registration	Expiry date
1	(A) - 康希諾生物	304506705	Our Company	5, 35, 42	Hong Kong	April 25, 2028
	(B) - 康希諾生物					
2	(A) - <b>CanSinoBIO</b>	304506697	Our Company	5, 35, 42	Hong Kong	April 25, 2028
	(B) - <b>CANSINO BIO</b>					
	(C) - <b>CanSinoBio</b>					

As at the Latest Practicable Date, the Company has applied for the registration of the following trademarks in the PRC, which we consider to be material to our business:

No.	Trademark	Application number	Applicant	Class	Place of application	Date of application
1	美奈喜	32689623	Our Company	42	China	August 3, 2018
2	美奈喜	32685017	Our Company	35	China	August 3, 2018
3	美奈喜	32676232	Our Company	5	China	August 3, 2018
4	<b>Menastia</b>	32677834	Our Company	42	China	August 3, 2018
5	<b>Menastia</b>	32676037	Our Company	35	China	August 3, 2018
6	<b>Menastia</b>	32689064	Our Company	5	China	August 3, 2018

*(b) Patents*

As of the Latest Practicable Date, we had 7 registered patents and 13 pending patent applications.

Our key registered patents are as follows:

No.	Patent	Patent number	Registrant	Place of registration	Date of application	Expiry date/Validity
1	Modified pneumococcal surface protein A with human homologous sequence replaced, and methods for purifying mutant protein and uses thereof (一種去除人同源性的肺炎鏈球菌表面蛋白A、純化方法及用途)	ZL201310211440.7	Our Company	China	December 30, 2011	Valid
2	Removal of human homologous sequence of pneumococcal surface protein A, and methods for purifying mutant protein and uses thereof (去除人同源性的肺炎鏈球菌表面蛋白A、純化方法及用途)	ZL201110455047.3	Our Company	China	December 30, 2011	Valid
3	A method for producing acellular pertussis vaccine (一種無細胞百日咳疫苗的生產方法)	ZL201210259916.X	Our Company	China	July 25, 2012	Valid
4	Pneumococcus polysaccharide protein conjugated vaccine and preparation method thereof (一種肺炎球菌多糖蛋白綴合疫苗及其製備方法)	ZL201410114934.8	Our Company	China	March 26, 2014	Valid
5	Method for enhancing immunogenicity of epitope peptide of HPV antigen, virus-like particle, and method for preparing HPV vaccine (增強HPV抗原表位肽免疫原性的方法及類病毒顆粒、顆粒製備方法與應用)	ZL201410419379.X	Our Company	China	August 22, 2014	Valid

No.	Patent	Patent number	Registrant	Place of registration	Date of application	Expiry date/Validity
6	Immunogenic composition for preventing streptococcus pneumoniae infectious diseases and preparation method thereof (預防肺炎鏈球菌感染性疾病的免疫原性組合物及製備方法)	ZL201410605626.5	Our Company	China	October 31, 2014	Valid
7	Multi-valent meningococcus kit, vaccine preparation and preparation method thereof (多價腦膜炎球菌製劑盒、疫苗製劑及其製備方法)	ZL201510354710.9	Our Company	China	June 24, 2015	Valid

Our key patents that have been applied for registration are as follows:

No.	Patent	Application Number	Applicant	Place of application	Date of application
1	Culture medium for preparing tetanus toxin and its application (一種用於製備破傷風毒素的培養基及其應用)	201510321238.9	Our Company	China	June 12, 2015
2	Haemophilus influenzae fusion protein and construction method and use thereof (一種流感嗜血桿菌融合蛋白及其構建方法與應用)	201510638297.9	Our Company	China	September 30, 2015
3	Mycobacterium tuberculosis Oligosaccharide (PGL-tb1) protein conjugate, and preparation methods and uses thereof (一種結核桿菌PGL-tb1寡糖綴合物及其製備方法與應用)	201610788095.7	Our Company	China	August 31, 2016
4	C-Ps monoclonal antibody and its preparation and application (一種C-Ps單克隆抗體及其製備和應用)	201610838392.8	Our Company	China	September 20, 2016
5	Protein carrier capable of enhancing immunogenicity of polysaccharide antigens, and its preparation and application (一種增強多糖抗原免疫原性蛋白載體及其製備方法與應用)	201610879330.1	Our Company	China	September 30, 2016

No.	Patent	Application Number	Applicant	Place of application	Date of application
6	Lipidated Ag85A protein (一種脂化Ag85A蛋白)	201610927937.2	Our Company	China	October 31, 2016
7	Freeze-drying additive for adenovirus and freeze-dried preparation of adenovirus (一種腺病毒冷凍乾燥添加劑 及腺病毒凍乾製劑)	201611100644.3	Our Company	China	December 5, 2016
8	Mycobacterium tuberculosis Oligosaccharide (Os-tb) protein conjugate, and preparation methods and uses thereof (一種結核桿菌OS-tb寡糖綴 合物及其製備方法與應用)	201710469962.5	Our Company	China	June 20, 2017
9	Methods for constructing cell lines to reduce production of replication competent adenoviruses and uses thereof (降低可複製性腺病毒產生的細 胞株及構建方法和應用)	201710778032.8	Our Company	China	September 1, 2017
10	Diagnosis kits for analyzing SFTS virus antigens and antibodies (新布尼亞病毒 抗原抗體檢測試劑盒)	201711468267.3	Our Company	China	December 29, 2017
11	Composition of multi-valent pneumococcal conjugate vaccine and uses thereof (一種多價肺炎球菌結合疫 苗的製劑組合及其應用)	201810693844.7	Our Company	China	June 29, 2018
12	Immunogenic composition having Brucella antigen oligosaccharide protein conjugate, the process for preparation and uses thereof (一種布氏桿菌抗原寡 糖蛋白偶聯物、製備方法及其用途)	201810764687.4	Our Company	China	July 12, 2018
13	SamRNA vaccine and the preparation process thereof (一種SamRNA疫苗及其 製備方法)	201910010764.1	Our Company	China	January 7, 2019

*(c) Domain Names*

As of the Latest Practicable Date, we had registered the following domain name which we consider to be material to our business:

<u>No.</u>	<u>Domain Name</u>	<u>Registered Owner</u>	<u>Date of registration</u>	<u>Expiry Date</u>
1	cansinotech.com	Our Company	October 28, 2008	October 28, 2022
2	cansinotech.com.cn	Our Company	October 27, 2014	October 27, 2020

**C. FURTHER INFORMATION ABOUT OUR DIRECTORS AND SUPERVISORS****1. Disclosure of Interest**

Immediately following the completion of the Global Offering and assuming that the Over-allotment Option is not exercised, the interests or short positions of Directors, Supervisors or chief executive of our Company in the Shares, underlying Shares and debentures of our Company or its associated corporations (within the meaning of Part XV of the SFO) which will be required to be notified to our Company and the Stock Exchange pursuant to Divisions 7 and 8 of Part XV of the SFO (including interests or short positions which they were taken or deemed to have under such provisions of the SFO) or which will be required, under Section 352 of the SFO, to be entered in the register referred to in that section, or which will be required, under the Model Code for Securities Transactions by Directors of Listed Issuers as set out in Appendix 10 to the Listing Rules (the “Model Code”), to be notified to our Company once the H Shares are listed will be as follows:

<u>Name</u>	<u>Nature of interest</u>	<u>Relevant corporation</u>	<u>Number and Class of Shares</u>	<u>Approximate Percentage of Interest in Our Company immediately following the completion of the Global Offering</u>
Dr. Yu	Beneficial owner, Interest of a party to an agreement regarding interest in the Company <sup>(1)</sup>	Our Company	34,598,400 H Shares 16,724,200 Unlisted Foreign Shares 17,874,200 Domestic Shares	15.86% 7.66% 8.19%
Dr. Zhu	Beneficial owner, Interest of a party to an agreement regarding interest in the Company <sup>(1)</sup> , Interest in a controlled corporation <sup>(2)</sup>	Our Company	34,598,400 H Shares 16,724,200 Unlisted Foreign Shares 25,855,425 Domestic Shares	15.86% 7.66% 11.85%

Name	Nature of interest	Relevant corporation	Number and Class of Shares	Approximate Percentage of Interest in Our Company immediately following the completion of the Global Offering
Dr. Qiu	Beneficial owner, Interest of a party to an agreement regarding interest in the Company <sup>(1)</sup>	Our Company	34,598,400 H Shares	15.86%
			16,724,200 Unlisted Foreign Shares	7.66%
			17,874,200 Domestic Shares	8.19%
Dr. Chao	Interest of spouse <sup>(3)</sup>	Our Company	11,924,700 H Shares	5.47%
			4,409,500 Unlisted Foreign Shares	2.02%

*Notes:*

- (1) Pursuant to the Concert Party Agreement. See the section headed “History and Development” for details.
- (2) Dr. Zhu is the sole general partner of Tianjin Qianyi, Tianjin Qianrui and Tianjin Qianzhi, which will hold 1.59%, 1.51% and 0.55% of the issued share capital of our Company (immediately following the completion of the Global Offering and assuming that the Over-allotment Option is not exercised), respectively. Therefore, Dr. Zhu is deemed to be interested in the Shares held by Tianjin Qianyi, Tianjin Qianrui and Tianjin Qianzhi, all of which are Domestic Shares.
- (3) Dr. Chao is the spouse of Dr. Mao, one of our Controlling Shareholders. Therefore, Dr. Chao is deemed to be interested in the Shares in which Dr. Mao is interested in as a beneficial owner under the SFO.

As disclosed in the section headed “History and Development – Major Shareholding Changes of Our Company – Employee Incentive Schemes,” Ms. Zhengfang Liao, our employee supervisor, is one of the limited partners of Tianjin Qianyi and Tianjin Qianrui. Given Ms. Zhengfang Liao is neither a substantial shareholder nor a director of our Company, she has no duty of disclosure under Part XV of the SFO.

So far as is known to our Directors, for information on the persons who will, immediately following the completion of the Global Offering and taking no account of any Shares which may be issued pursuant to exercise of the Over-allotment Option, have or be deemed or taken to have an interest and/or short position in the Shares or the underlying Shares which would fall to be disclosed to our Company under the provisions of Divisions 2 and 3 of Part XV of the SFO or, directly or indirectly, interested in 10% or more of the issued voting shares of our Company, see the section headed “Substantial Shareholders” in this Prospectus.

## 2. Particulars of Service Contracts

Each of the Directors has entered into a service contract with our Company on November 20, 2018. These service agreements (a) are for a term commencing from the Listing Date and ending on the expiration date of the current Board of Directors; and (b) are subject to termination in accordance with the relevant terms. The service agreements may be renewed in accordance with the Articles of Association of the Company and the applicable laws, rules or regulations.

Each of the Directors and Supervisors has entered into a service contract pursuant to Rule 19A.54 and Rule 19A.55 of the Listing Rules with our Company which provides for, among others, compliance of relevant laws and regulations, observations of the Articles of Association and provision on arbitration with our Company.

Save as disclosed above, none of the Directors or Supervisors of our Company has or is proposed to have a service contract with us.

### **3. Directors' and Supervisors' Remuneration**

The aggregate amount of fees, salaries, allowances and retirement benefit scheme contributions we paid to our Directors in respect of the financial years ended December 31, 2016, 2017 and 2018 was RMB1.10 million, RMB1.55 million and RMB5.87 million, respectively.

The aggregate amount of fees, salaries, allowances and retirement benefit scheme contributions we paid to our Supervisors in respect of the financial years ended December 31, 2016, 2017 and 2018 was RMB0.20 million, RMB0.24 million and RMB0.25 million, respectively.

Under the arrangements currently in force, the aggregate amount of remuneration (excluding any discretionary bonus which may be paid) payable by our Company to our Directors and Supervisors for the financial year ending December 31, 2019 is expected to be approximately RMB5.71 million.

There was no arrangements under which any Director or Supervisor has waived or agree to waive any emolument during the Track Record Period.

### **4. Disclaimers**

Save as disclosed in this Prospectus:

- (a) none of the Directors, Supervisors or chief executive of our Company has any interest or short positions in the Shares, underlying Shares or debentures of our Company or any associated corporation (within the meaning of Part XV of the SFO) which will have to be notified to us and the Stock Exchange pursuant to Divisions 7 and 8 of Part XV of the SFO (including interests and short positions which he is taken or deemed to have under such provisions of the SFO) or which will be required, pursuant to section 352 of the SFO, to be entered into the register referred to in that section, or which will be required to be notified to us and the Stock Exchange pursuant to the Model Code, in each case once our H Shares are listed;
- (b) none of the Directors or Supervisors nor any of the parties listed in the paragraph headed “– D. Other Information – 7. Qualification of Experts” of this Appendix is interested in our Company's promotion, or in any assets which have, within the two years immediately preceding the issue of this Prospectus, been acquired or disposed of by or leased to our Company, or are proposed to be acquired or disposed of by or leased to our Company;

- (c) none of the Directors or Supervisors is a director or employee of a company which is expected to have an interest in the Shares falling to be disclosed to our Company and the Stock Exchange under the provisions of Divisions 2 and 3 of Part XV of the SFO once the H Shares are listed on the Stock Exchange; save as disclosed in this Prospectus, none of the Directors or Supervisors of our Company nor any of the parties listed in paragraph headed “– D. Other Information – 7. Qualification of Experts” of this Appendix is materially interested in any contract or arrangement subsisting at the date of this Prospectus which is significant in relation to our business;
- (d) none of the parties listed in the paragraph headed “– D. Other Information – 7. Qualification of Experts” of this Appendix: (i) is interested legally or beneficially in any of the Shares of our Company or any shares in any of its subsidiaries; or (ii) has any right (whether legally enforceable or not) to subscribe for or to nominate persons to subscribe for the securities of our Company; and
- (e) none of the Directors or Supervisors or the respective close associates or any Shareholders (who to the knowledge of our Directors owns more than 5% of our issued share capital) has any interest in our five largest suppliers or our five largest customers.

## **D. OTHER INFORMATION**

### **1. Estate Duty**

We have been advised that no material liability for estate duty under PRC law is likely to fall upon the Company.

### **2. Litigation**

During the Track Record Period and as of the Latest Practicable Date, our Company was not involved in any litigation, arbitration or administrative proceedings of material importance and, so far as we are aware, no litigation, arbitration or administrative proceedings of material importance are pending or threatened against us as of the Latest Practicable Date.

### **3. Joint Sponsors**

The Joint Sponsors have made an application on behalf of the Company to the Listing Committee for listing of, and permission to deal in, the H Shares of the Company, including any additional Offer Shares which may be issued pursuant to the exercise of the Over-allotment Option. All necessary arrangements have been made enabling the H Shares to be admitted into CCASS.



Morgan Stanley Asia Limited, being one of the Joint Sponsors, satisfies the independence criteria applicable to sponsors set out in Rule 3A.07 of the Listing Rules.

CLSA Capital Markets Limited, being the other Joint Sponsor, is an indirect wholly-owned subsidiary of CITIC Securities Company Limited. CITIC Investment and Jinshi Yikang, being an indirectly wholly-owned subsidiary and an associate of CITIC Securities Company Limited, respectively, are regarded as members of the sponsor group of CLSA Capital Markets Limited as defined under the Listing Rules. Jinshi Yikang and CITIC Investment will hold approximately 0.54% and 0.54% of the issued share capital of our Company immediately following the completion of the Global Offering (assuming the Over-allotment Option is not exercised), respectively. Based on the foregoing facts and taking into account all the other criteria applicable to sponsors set out in Rule 3A.07 of the Listing Rules, CLSA Capital Markets Limited is of the view that the shareholdings of Jinshi Yikang and CITIC Investment in the Company will not impair its independence and it satisfies the independence criteria applicable to sponsors set out in Rule 3A.07 of the Listing Rules.

Our Company has entered into an engagement agreement with each of the Joint Sponsors respectively, pursuant to which our Company agreed to pay an aggregate of USD1,000,000 to the Joint Sponsors to act as the sponsors to our Company in the Global Offering.

#### **4. Compliance Adviser**

Our Company have appointed Somerley Capital Limited as our Compliance Adviser in compliance with Rule 3A.19 of the Listing Rules.

#### **5. Preliminary Expenses**

We have not incurred any material preliminary expenses in relation to the incorporation of our Company.

#### **6. Promoters**

The promoters of our Company are Dr. Yu, Dr. Zhu, Dr. Qiu, Dr. Mao, LAV Spring, QM29, Shanghai Li'an, Shanghai Nuoqianjin, LAV Bio, Jiaxing Huiguang, Tianjin Qianyi, Mr. Jianfa Liu, Tianjin Heyue, Suzhou Huyanglin, Lilly Asia, Suzhou Litai, Ms. Xuan Liu, Shanghai Licheng, Shanghai Huiqiu. Mr. Zhongqi Shao and Mr. Jianxi Du.

Save as disclosed in the section headed "History and Development," within the two years immediately preceding the date of this Prospectus, no cash, securities or other benefit have been paid, allotted or given or have been proposed to be paid, allotted or given to the above promoters in connections with the Global Offering or related transactions in this Prospectus.

**7. Qualification of Experts**

The qualifications of the experts are as follows:

<b>Name</b>	<b>Qualification</b>
Morgan Stanley Asia Limited	Licensed corporation to conduct Type 1 (Dealing in securities), Type 4 (Advising on securities), Type 5 (Advising on futures contracts), Type 6 (Advising on corporate finance) and Type 9 (Asset management) regulated activities as defined under the SFO
CLSA Capital Markets Limited	Licensed corporation to conduct Type 4 (Advising on securities) and Type 6 (Advising on corporate finance) regulated activities as defined under the SFO
PricewaterhouseCoopers	Certified Public Accountants
Tian Yuan Law Firm	PRC legal adviser
China Insights Consultancy Limited	Industry consultant
D&P China (HK) Limited	Property valuer

**8. Consents of Experts**

Each of the experts as referred to in the paragraph headed “– 7. Qualification of Experts” in this Appendix has given, and has not withdrawn their written consents to the issue of this Prospectus with the inclusion of their reports and/or letters and/or opinions and/or the references to their names included herein in the form and context in which they are respectively included.

None of the experts named above has any shareholding interests in our Company or the right (whether legally enforceable or not) to subscribe for or to nominate persons to subscribe for securities in our Company.

**9. Taxation of Holders of H Share**

The sale, purchase and transfer of H Shares are subject to Hong Kong stamp duty if such sale, purchase and transfer are effected on the H Share register of members of the Company, including in circumstances where such transaction is effected on the Stock Exchange. The current rate of Hong Kong stamp duty for such sale, purchase and transfer is a total of HK\$2.00 for every HK\$1,000 (or part thereof) of the consideration or, if higher, the fair value of the H Shares being sold or transferred. For further information in relation to taxation, see “Appendix IV – Taxation and Foreign Exchange” in this Prospectus.

**10. Agency Fees or Commissions Paid or Payable**

Save as disclosed in this Prospectus, no commissions, discounts, brokerages or other special terms have been granted in connection with the issue or sale of any capital of our Company within the two years immediately preceding the date of this Prospectus.

**11. No Material Adverse Change**

The Directors confirm that there has been no material adverse change in our financial or trading position since December 31, 2018.

**12. Miscellaneous**

Save as disclosed in this Prospectus,

- (a) within the two years preceding the date of this Prospectus, our Company has not issued nor agreed to issue any share or loan capital fully or partly paid either for cash or for a consideration other than cash;
- (b) no Share or loan capital of our Company, if any, is under option or is agreed conditionally or unconditionally to be put under option;
- (c) our Company has not issued nor agreed to issue any founder shares, management shares or deferred shares;
- (d) our Company has no outstanding convertible debt securities or debentures;
- (e) there is no arrangement under which future dividends are waived or agreed to be waived;
- (f) our Company currently does not intend to apply for the status of a sino-foreign investment joint stock limited company and does not expect to be subject to the Sino-Foreign Joint Venture Law of the PRC (《中華人民共和國中外合資經營企業法》);
- (g) there has been no interruption in our business which may have or have had a significant effect on the financial position in the last 12 months;
- (h) none of our Directors or experts referred to under the paragraph headed “– 7. Qualification of Experts” in this Appendix has any direct or indirect interest in the promotion of our Company, or in any assets which have within the two years immediately preceding the date of this Prospectus been acquired or disposed of by or leased to our Company, or are proposed to be acquired or disposed of by or leased to our Company; and
- (i) our Company is not presently listed on any stock exchange or traded on any trading system.

**13. Binding Effect**

This Prospectus shall have the effect, if an application is made in pursuance hereof, of rendering all persons concerned bound by all the provisions (other than the penal provisions) of sections 44A and 44B of the Companies (Winding Up and Miscellaneous Provisions) Ordinance so far as applicable.

**14. Bilingual Prospectus**

The English language and Chinese language versions of this Prospectus are being published separately in reliance upon the exemption provided by section 4 of the Companies (Exemption of Companies and Prospectuses from Compliance with Provisions) Notice (Chapter 32L of the Laws of Hong Kong).

**DOCUMENTS DELIVERED TO THE REGISTRAR OF COMPANIES**

The documents attached to the copy of this Prospectus delivered to the Registrar of Companies in Hong Kong for registration were:

- (a) a copy of each of the **White, Yellow and Green** Application Forms;
- (b) the written consents referred to in “Appendix VII – Statutory and General Information – D. Other Information – 8. Consents of Experts;”
- (c) a copy of each of the material contracts referred to in “Appendix VII – Statutory and General Information – B. Further Information about our Business – 1. Summary of Material Contracts.”

**DOCUMENTS AVAILABLE FOR INSPECTION**

Copies of the following documents will be available for inspection at the Company’s principal place of business in Hong Kong at Room 1901, 19/F, Lee Garden One, 33 Hysan Avenue, Causeway Bay during normal business hours up to and including the date which is 14 days from the date of this Prospectus:

- (a) the Memorandum and Articles of Association;
- (b) the Accountant’s Report from PricewaterhouseCoopers the text of which is set out in Appendix I to this prospectus;
- (c) the report on the unaudited pro forma financial information from PricewaterhouseCoopers, the text of which is set out in Appendix II to this Prospectus;
- (d) the audited consolidated financial statements of our Company for the years ended December 31, 2016, 2017 and 2018;
- (e) the PRC legal opinion issued by Tian Yuan Law Firm, our PRC Legal Adviser, in respect of certain aspects of the Company;
- (f) the Property Valuation Report prepared by D&P China (HK) Limited, the text of which is set out in Appendix III to this prospectus;
- (g) the material contracts referred to in “Appendix VII – Statutory and General Information – B. Further Information about our Business – 1. Summary of Material Contracts;”
- (h) the written consents referred to in “Appendix VII – Statutory and General Information – D. Other Information – 8. Consents of Experts;”

- (i) the service contracts referred to in “Appendix VII – Statutory and General Information – C. Further Information about our Directors and Supervisors – 2. Particulars of Service Contracts;”
- (j) the CIC Report; and
- (k) the PRC Company Law.

康希诺生物股份公司  
**CanSino Biologics Inc.**

