三生制药
3SBIO INC.

(Incorporated in the Cayman Islands with limited liability)
Stock Code: 1530
Convertible Bonds Code: 5241

2018
ANNUAL REPORT

*Honoring **commitments** and delivering **hope**.*

三生制药
3SBIO INC.

Contents

Company Profile

3SBio Inc. (the "**Company**" or "**3SBio**", with its subsidiaries collectively, the "**Group**") is a leading biotechnology company in the People's Republic of China (the "**PRC**" or "**China**")[1]. As a pioneer in the Chinese biotechnology industry, the Group has extensive expertise in researching and developing, manufacturing and marketing biopharmaceuticals. The core products of the Group include TPIAO (特比澳), Yisaipu (益賽普) and recombinant human erythropoietin ("**rhEPO**") products, EPIAO (益比奧) and SEPO (賽博爾). All of these four products are market leaders in the PRC. TPIAO is the only commercialized recombinant human thrombopoietin ("**rhTPO**") product in the world. According to IMS Health Inc. ("**IMS**")[2], the market share of TPIAO in China increased to 65.3% for the treatment of thrombocytopenia in 2018. Yisaipu is a Tumour Necrosis Factor ("**TNF**") α inhibitor product with a continuing dominant market share in China of 64.0% in 2018. With its two rhEPO products, the Group has been the dominant market leader in the rhEPO market in China for nearly two decades, with a total market share of 41.0% in 2018. The Group has been expanding its therapeutic coverage by adding products through various strategic partnerships.

As at 31 December 2018, amongst the 32 product candidates within the Group's active pipeline, 22 were being developed as National Class I New Drugs (國家一類新藥) in China. The Group has 11 product candidates in oncology; 12 product candidates that target auto-immune diseases including rheumatoid arthritis ("**RA**"), and other diseases such as refractory gout and ophthalmological diseases such as age-related macular degeneration (the "**AMD**"); six product candidates in nephrology; two product candidates in the metabolic area that target type 2 diabetes; and one product candidate in dermatology. A total of 22 of the 32 product candidates are biologics, and the other 10 are small molecules.

The Group operates in a highly attractive industry. Biotechnology has revolutionized the pharmaceutical industry by addressing unmet medical needs and offering innovative treatments for a wide array of human diseases. In China, the biotechnology industry enjoys strong government support and has been selected by the State Council of China as a key strategic emerging industry. Strong government support along with increasing physician adoption of biopharmaceuticals has driven strong industry growth in China.

The Group is well positioned for global expansion. Outside of China, TPIAO has been approved in seven countries; Yisaipu has been approved in 14 countries; and EPIAO has been approved in 22 countries. The Group's manufacturing facility for Yisaipu has received a Qualified Person's Declaration Equivalence to European Union Good Manufacturing Practice for Investigation Medicinal Products manufactured in Third Countries. In the long term, the Group aims to market its products in developed countries. Furthermore, the Group is collaborating with international partners to develop and market the Group's product candidates, such as pegsiticase. The Group aims to focus its research and development ("**R&D**") by providing innovative therapeutics for patients in China and globally.

As at 31 December 2018, the Group had operation facilities in Shenyang, Shanghai, Hangzhou and Shenzhen, all in China, as well as in Como, Italy, with over 5,000 employees. The Group's pharmaceutical products are marketed and sold in all provinces, autonomous regions and special municipalities in China, as well as a number of foreign countries and regions. During the year ended 31 December 2018 (the "**Reporting Period**"), the Group's nationwide sales and distribution network enabled it to sell its products to approximately 17,000 hospitals and medical institutions in China.

[1] Solely for purpose of this Report, "PRC" or "China" hereinafter, except where the context requires otherwise, excludes Hong Kong, Macau and Taiwan.

[2] All market share information throughout this Report cites the IMS data, unless otherwise noted.

Corporate Information

BOARD OF DIRECTORS

Executive Directors

Dr. LOU Jing (*Chairman & Chief Executive Officer*)

Mr. TAN Bo

Ms. SU Dongmei

Mr. HUANG Bin

Non-executive Directors

Mr. LIU Dong

Mr. WANG Steven Dasong

Independent Non-executive Directors

Mr. PU Tianruo

Mr. David Ross PARKINSON

Mr. MA Jun

JOINT COMPANY SECRETARIES

Ms. LIU Yanli

Ms. LAI Siu Kuen (resigned on 20 August 2018)

Ms. LEUNG Suet Wing (appointed on 20 August 2018)

AUTHORIZED REPRESENTATIVES

Mr. TAN Bo

Ms. LIU Yanli

AUDIT COMMITTEE

Mr. PU Tianruo (*Chairman*)

Mr. WANG Steven Dasong

Mr. MA Jun

REMUNERATION COMMITTEE

Mr. MA Jun (*Chairman*)

Mr. LIU Dong

Mr. PU Tianruo

NOMINATION COMMITTEE

Dr. LOU Jing (*Chairman*)

Mr. PU Tianruo

Mr. MA Jun

REGISTERED OFFICE (IN THE CAYMAN ISLANDS)

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Grand Cayman, KY1-1111

Cayman Islands

PRINCIPAL PLACE OF BUSINESS IN HONG KONG

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Shenyang Economy and Technology Development Zone

Shenyang

PRC

PRINCIPAL SHARE REGISTRAR AND TRANSFER OFFICE

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Cayman Islands

HONG KONG SHARE REGISTRAR

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Wanchai, Hong Kong

PRINCIPAL BANK

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Shenyang
PRC

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Ernst & Young
Certified Public Accountants
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Central
Hong Kong

LEGAL ADVISERS

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979 King's Road
Quarry Bay
Hong Kong

As to PRC law:
Jingtian & Gongcheng
34th Floor, Tower 3, China Central Place
77 Jianguo Road
Chaoyang District
Beijing
PRC

As to Cayman Islands law:
Conyers Dill & Pearman
SIX, 2nd Floor, Cricket Square
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Grand Cayman, KY1-1111
Cayman Islands

STOCK CODE

Shares Listing
Ordinary Shares
The Stock Exchange of Hong Kong Limited
(Stock Code: 1530)

Convertible Bonds Listing
EUR300,000,000 Zero-Coupon
Convertible Bonds due 2022
The Stock Exchange of Hong Kong Limited
(Convertible Bonds Code: 5241)

COMPANY'S WEBSITE

www.3sbio.com

Financial Highlights

	2014 RMB'000	2015 RMB'000	2016 RMB'000	2017 RMB'000	**2018** **RMB'000**
Revenue	1,130,854	1,673,126	2,797,289	3,734,334	**4,583,869**
Gross Profit	1,043,373	1,431,215	2,395,021	3,058,099	**3,706,614**
EBITDA	399,528	660,705	1,144,383	1,476,817	**1,892,824**
Normalized EBITDA	518,791	734,136	1,151,789	1,445,451	**1,781,760**
Net Profit	291,728	526,230	714,254	924,404	**1,277,246**
Normalized Net Profit	410,991	599,661	721,660	893,038	**1,166,182**
Profit attributable to owners of the parent	291,728	526,280	712,564	935,389	**1,277,167**
Total Assets	2,306,441	6,630,432	11,038,802	13,752,971	**13,839,655**
Total Liabilities	1,362,849	994,967	4,272,460	6,123,325	**4,932,285**
Total Equity	943,592	5,635,465	6,766,342	7,629,646	**8,907,370**

Chairman's Statement

Dear Shareholders:

On behalf of the board of directors (the "**Directors**") of the Company (the "**Board**"), I am pleased to present the annual results of the Company for the financial year ended 31 December 2018.

With the ongoing healthcare reform and the booming bio-pharmaceutical industry, 3SBio has achieved strong growth for several consecutive years. 3SBio's core marketed products TPIAO, Yisaipu, EPIAO and SEPO maintained their dominant market positions in 2018 with total sales rising by approximately 22.7%. TPIAO, the world's only commercialized recombinant human thrombopoietin performed strongly with sales rising over 71% in 2018. 3SBio also launched Bydureon, the first once-weekly anti-diabetes GLP-1 drug in China, providing a new treatment option for patients.

3SBio's R&D platform achieved great progress over the past year. The PRC National Medical Products Administration[3] ("**NMPA**") granted priority review status for the New Drug Application ("**NDA**") of 302H (賽普汀), which, if approved, will be the first domestic treatment for HER2 over-expressing metastatic breast cancer. We also completed phase III trials of pre-filled syringe of Yisaipu, and plan to apply for manufacturing approval in the first half of 2019. We continue to expand indications for TPIAO, including investigation new drug ("**IND**") approval for pediatric immune thrombocytopenia ("**ITP**") and an ongoing trial for hepatic dysfunction at the risk of thrombocytopenia. NuPIAO, a long-acting rhEPO received approval to initiate phase II and phase III clinical trials. We also received IND approvals for three additional ophthalmology indications for 601A, an anti-vascular endothelial growth factor ("**VEGF**") antibody, and patient enrollment for 601A in neovascular AMD trials is ongoing. We have also completed phase I studies of RD001, SSS07 (humanized anti-TNF α antibody) and 602 (anti-epidermal growth factor receptor ("**EGFR**") antibody), with planning underway for phase II trials for RD001 and SSS07 and a phase III pivotal trial for 602 in patients with colorectal cancer. We initiated patient enrollment for a phase I trial of SSS11 (pegsiticase) for refractory gout. In January 2019, the U.S. Food and Drug Administration granted an IND approval for 609A, an anti-PD1 antibody to treat patients with various cancers and we will also submit an IND application for 609A in China.

3SBio continues to pursue international collaborations that enrich its portfolio of marketed products and innovative pipeline candidates. In 2018, 3SBio in-licensed Toray Industries, Inc. ("**Toray**")'s Remitch, approved in Japan for hemodialysis-related uremic pruritus, and acquired a calcium acetate product in Beijing. 3SBio established a research collaboration with Menlo Park, California-based Refuge Biotechnologies, Inc. ("**Refuge**") to develop programmed therapeutic cells. So far in 2019, 3SBio has partnered with Korea's Samsung Bioepis Co., Ltd. ("**Samsung Bioepis**") for the clinical development and commercialization of multiple biosimilars, including SB8, a bevacizumab biosimilar; with Cambridge, Massachusetts-based Verseau Therapeutics, Inc. ("**Verseau**") to develop and commercialize novel monoclonal antibodies in the field of immuno-oncology; and with Taiwan Liposome Company, Ltd. to commercialize two liposomal products in the therapeutic areas of oncology and severe infectious diseases in China. These collaborations demonstrate 3SBio's capabilities in international development and operations, while laying a strong foundation for its future globalization strategy.

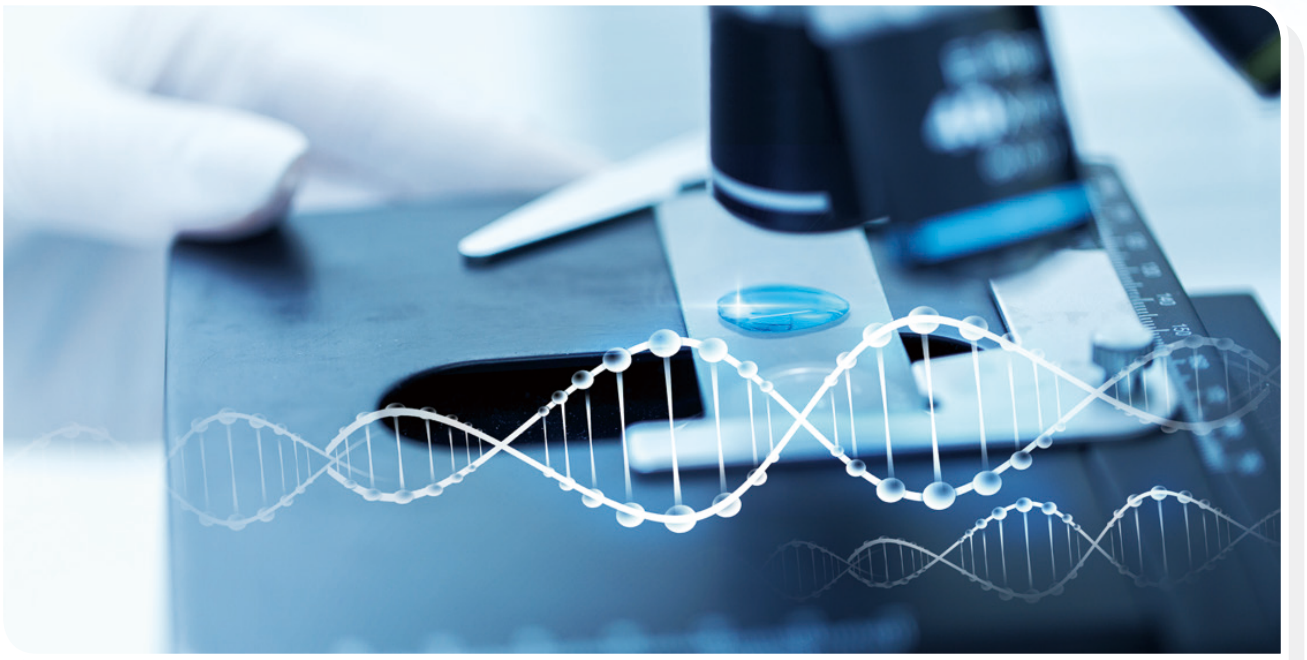
In the future, 3SBio intends to reinforce its position as a leading biopharmaceutical company in China by continuing to leverage its integrated R&D, manufacturing and commercial platforms. With approximately 38,000-liter antibody manufacturing capacity and mammalian cell-based, bacteria cell-based and small molecule manufacturing facilities, and 26 years of experience in manufacturing biologics medicines, 3SBio is well positioned to deliver on our objective to be a globally leading Chinese biopharmaceutical enterprise and improve the accessibility of safe, effective and affordable biological medicines both in China and internationally.

Finally, on behalf of 3SBio, I give my sincerest thanks to our shareholders for supporting our efforts to extend our capabilities and contribute to improving patient health.

Dr. LOU Jing
Chairman & Chief Executive Officer
20 March 2019

[3] Formerly known as the China Food and Drug Administration.

Management Discussion and Analysis



BUSINESS REVIEW

Key Events

As announced on 4 January 2018, one of the Group's in-licensed products, China's first glucagon-like peptide-1 ("**GLP-1**") receptor agonist weekly preparation Bydureon (generic name: exenatide microsphere for injection) had been approved by the NMPA as a new treatment option to improve glycemic control for patients with type 2 diabetes. As the first GLP-1 receptor agonist medicine in China that is administered once-weekly, it reduces the frequency of dosing, reduces gastrointestinal adverse effects, increases drug stability and improves patient compliance by continuing to provide steady-state levels of exenatide with sustained release microsphere technology. This product was licensed to the Group by AstraZeneca PLC ("**AstraZeneca**") in October 2016 and was launched in China on 25 May 2018.

As announced on 15 January 2018, 3SBio's wholly-owned subsidiary, Hongkong Sansheng Medical Limited ("**Hongkong Sansheng**") and Toray entered into an exclusive licensing agreement (the "**Toray Agreement**") for the development and commercialization of certain oral disintegration tablet formulation of antipruritic drug TRK-820 (as under Toray development code, with the generic name as nalfurafine hydrochloride, also known as "REMITCH" as approved in Japan) that is developed and manufactured by Toray. Pursuant to the Toray Agreement, Toray agreed to grant Hongkong Sansheng the exclusive right to develop and commercialize this product in China, and Hongkong Sansheng agreed to pay Toray an upfront licensing fee as well as future milestone payments.

As announced on 22 February 2018, the Group received an approval from the NMPA to conduct clinical trials on TPIAO for pediatric ITP indication.

On 30 April 2018, the Company announced a research collaboration with Menlo Park, California-based Refuge, a company leveraging gene engineering technologies to develop intelligent cell therapeutics programmed to make decisions inside patients. The Company and Refuge will jointly design and carry out research programs focusing on developing programmed therapeutic cells that can produce therapeutic biologics agents in a disease micro environment inside a patient's body, using Refuge's platform technology. 3SBio will have an exclusive license to develop and commercialize the programmed therapeutic cells in Greater China, which included Mainland China, Taiwan, Hong Kong and Macau (the "**Territory**") under the research collaboration agreement entered into between the Company and Refuge. Concurrently, 3SBio and a co-lead investor Sequoia Capital China, as well as existing Series A investors, had completed a USD25 million Series B investment round into Refuge.

In May 2018, the Group received an approval from NMPA for Phase II and Phase III trials on NuPIAO (SSS06) in anemic patients.

In June 2018, the Group received three additional clinical trial approvals from the NMPA for an anti-VEGF antibody (601A) for the treatment of several ophthalmic diseases, including macular edema following retinal vein occlusion (RVO), myopic choroidal neovascularization (mCNV), and diabetic retinopathy with macular edema (DME).

In July 2018, the Group entered into an agreement with a Beijing-based pharmaceutical company to acquire a calcium acetate tablet product. This calcium acetate tablet treats hyperphosphatemia in patients with chronic kidney disease, and is included in the National Reimbursement Drug List ("**NRDL**") released by the Ministry of Human Resources and Social Security of the PRC as a Class B Drug (No. 149). A market survey conducted by the Company shows that this product is one of the primary treatments in hyperphosphatemia. The Company expects to market this product in the first half of 2019.

In August 2018, China Pharmaceutical Industry Information Center ("**CPIIC**") issued the "2017 China Pharma 100" List (the "**China Pharma List**"), which ranked the Group as 67th out of the top 100 pharmaceutical companies in China, as compared to 84th in 2016, making the Group a company with the biggest rise in ranking in the China Pharma List. CPIIC is an official pharmaceutical information platform of the PRC Ministry of Industry and Information Technology. The China Pharma List is officially recognized by local authorities in the government-sponsored competitive bidding process that determines the medicine procurement of state-owned hospitals, as any company elected in the China Pharma List will be awarded points for the bidding. CPIIC also elected the Group as one of the "Best Pharmaceutical R&D Pipeline Companies in China".

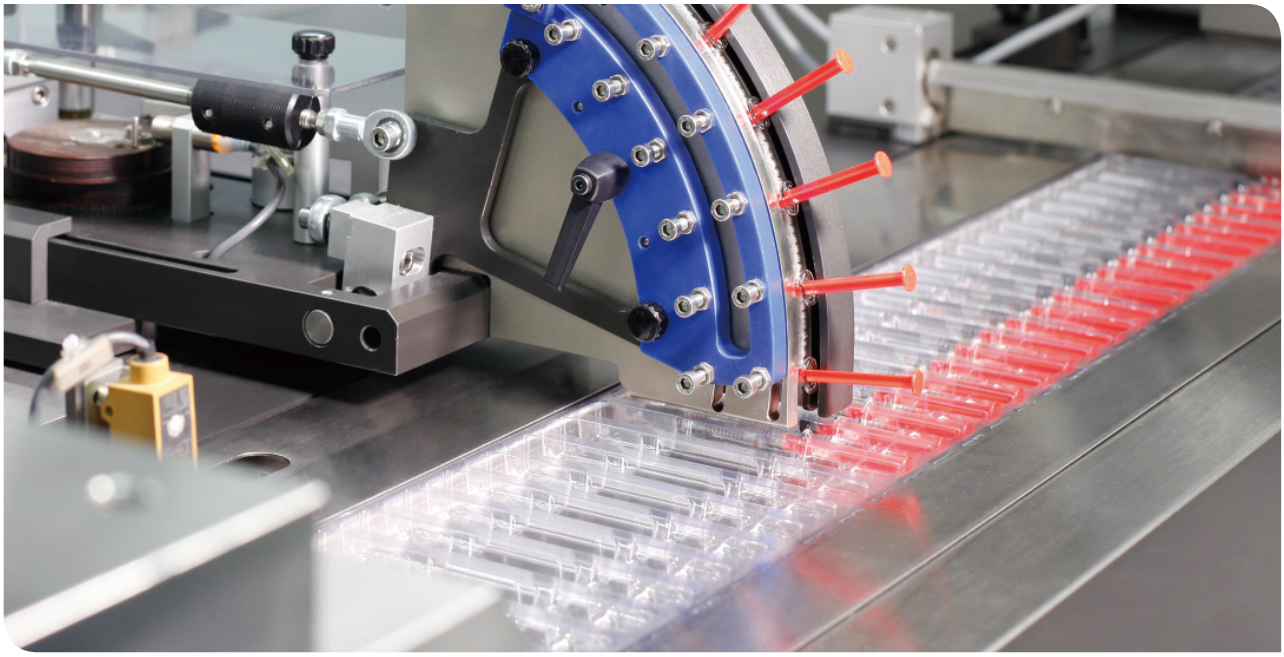
Effective from 10 December 2018, the Company has been selected as a constituent of Hang Seng China (Hong Kong-listed) 100 Index.

Key Events after the Reporting Period

As announced on 7 January 2019, Hongkong Sansheng entered into a collaboration agreement (the "**Samsung Agreement**") with Samsung Bioepis for the clinical development and commercialization of multiple biosimilar candidates developed by Samsung Bioepis, including SB8 bevacizumab biosimilar candidate ("**SB8**") in China. Pursuant to the Samsung Agreement, Samsung Bioepis is responsible for manufacturing and supply of the products and collaborates with 3SBio across a number of areas including clinical development, regulatory registration and commercialization in China. The indications of Bevacizumab biosimilar candidate in China will focus on metastatic colorectal cancer (mCRC) and non-small cell lung cancer (NSCLC).

On 11 January 2019, the Group received an IND approval from the U.S. Food and Drug Administration for 609A, an anti-PD1 antibody, for clinical trials in patients with various cancers. Patient enrollment is expected to begin soon. The Group is currently preparing for a submission of an IND application to the NMPA for clinical trial approval for 609A in China.

On 11 February 2019, the Group and Verseau announced a partnership agreement (the "**Partnership Agreement**") focusing on the development and commercialization of novel monoclonal antibodies in the field of immuno-oncology for a broad range of cancers. Verseau's proprietary drug discovery platform generates first-in-class macrophage checkpoint modulators ("**MCM**") to benefit patients with cancer, immune and inflammatory diseases. Under the terms of the Partnership Agreement, the Group receives an exclusive license to develop and commercialize a selective number of MCM antibodies for all human



oncology indications in the Territory. Verseau is responsible for discovery and optimization of MCM antibodies for each program. The Group funds and conducts antibody development, Good Manufacturing Practices ("**GMP**") manufacturing and commercialization in the Territory. Verseau and the Group are eligible to receive certain milestone payments and royalties on product sales both in the Territory and globally. The Group will also purchase USD15 million of Verseau Series B preferred stock. This collaboration with Verseau provides the Group with access to novel and differentiated immune-modulating antibodies that will complement the Group's growing innovative oncology portfolio.

On 4 March 2019, the Company and Taiwan Liposome Company, Ltd. (Nasdaq: TLC, TWO: 4152) ("**TLC**") announced an exclusive partnership to commercialize in China two liposomal products utilizing TLC's proprietary NanoX™ technology platform in the therapeutic areas of oncology and severe infectious diseases. Under this partnership, TLC and 3SBio will cooperate to obtain regulatory approvals in China, and TLC will utilize its commercial-scale manufacturing capabilities to supply the two liposomal products for 3SBio to commercialize in China. The two companies also agreed to further collaborate in researching and developing other novel liposomal products in the therapeutic areas of osteoarthritis, pain management, ophthalmology and oncology. NanoX™ active drug loading technology is designed to alter the systemic exposure of the drug, potentially reducing dosing frequency and enhancing distribution of liposome-encapsulated active agents to the desired site. Under the terms of the relevant agreement, TLC is eligible to receive up to USD25 million as upfront payment for each product and regulatory and sales milestone payments. TLC is also eligible for a share of the potential profits from the product sales.

Key Products

TPIAO is the Group's self-developed proprietary product, and has been the only commercialized rhTPO product in the world since its launch in 2006. TPIAO has been approved by the NMPA for two indications: the treatment of chemotherapy-induced thrombocytopenia ("**CIT**") and ITP. TPIAO has the advantages of higher efficacy, faster platelet recovery and fewer side effects as compared to alternative treatments for CIT and ITP. TPIAO is included in the 2017 NRDL as a Class B Drug (No. 214) for the treatment of severe CIT in patients with solid tumors or ITP. In "The Consensus of China Experts on Diagnosis and Treatment of Adult Primary Immune Thrombocytopenia" (2016 Version), rhTPO products are included as the first choice recommendation for the second line treatments list, and are recommended among the medicines to boost platelet production in certain emergencies cases. In "The Chinese Guidelines for Treatment of Adult Primary Immune Thrombocytopenia", published in International Journal of Hematology in April 2018, rhTPO is included as the first choice recommendation for the second line treatments list. In "The Guidelines of Chinese Society of Clinical Oncology (CSCO) — Conventional Osteosarcoma", issued in April 2018, TPIAO is recommended as one of the primary treatments in the CIT context. In "China Experts Consensus on Diagnosis and Treatment of Multiple Organ Dysfunction Syndrome Induced by Infection in The Elderly", published in Chinese Journal of Practical Internal Medicine (Issue 2018-8), TPIAO is recommended for patients with thrombocyte less than $50x10^9$/L. In "Consensus on Clinical Diagnosis, Treatment and Prevention Management of Chemotherapy-Induced Thrombocytopenia in China", published in Chinese Journal of Oncology (Issue 2018-9), TPIAO is recommended for patients with thrombocyte less than $75x10^9$/L. TPIAO has experienced significant sales growth due to increasing physician awareness of its safety and efficacy as a treatment for CIT and ITP and its quick adoption in China. The inclusion in the 2017 NRDL also led to accelerated growth for TPIAO since the fourth quarter of 2017, as the 2017 NRDL was implemented from September 2017 onwards. The Group believes that TPIAO is still at an early stage of its product life cycle. The Group estimates that the penetration rates for both CIT and ITP indications in China may be approximately 20% to 24%. Currently, the majority of the Group's sales of TPIAO is generated from approximately 10% of the hospitals covered by the Group's sales team. In 2018, TPIAO was one of the top 50 best-selling pharmaceutical products in terms of sales value in the China market; and the China market share, in terms of volume, of TPIAO for the treatment of thrombocytopenia was 19.4%. TPIAO was approved by the NMPA to enter clinical trials for pediatric ITP indication in February 2018. Outside of China, TPIAO has been approved in seven countries, including Ukraine, Philippines and Thailand.

Yisaipu, generically known as etanercept, is a TNF α inhibitor product. It was first launched in 2005 in China for RA. Its indications were expanded to ankylosing spondylitis ("**AS**") and psoriasis in 2007. The Group actively participated in the works related to "The 2018 China Rheumatoid Arthritis Treatment Guidance" (the "**Guidance**"), an authoritative document issued by the China Medical Association. Yisaipu is adopted in the Guidance under 'TNF α inhibitors' as one of the RA treatment options, and the Guidance deems TNF α inhibitors as a group of biological agents with relatively sufficient evidence and relatively wide adoption in treating RA. Yisaipu is included in the 2017 NRDL as a Class B Drug (No. 846) for the treatment of patients with confirmed diagnosis of RA, and for the treatment of patients with confirmed diagnosis of AS (not including pre-radiographic axial spondyloarthritis), each subject to certain medical prerequisites. Yisaipu has experienced significant growth as the first-to-market etanercept product in China, with a dominant market share in China of 64.0% by sales in 2018. The sales coverage of Yisaipu extends to more than 2,700 hospitals in China, including over 1,000 Grade III hospitals.

The inclusion of Yisaipu in the 2017 NRDL also led to accelerated growth of Yisaipu since the fourth quarter of 2017, as the 2017 NRDL was implemented from September 2017 onwards. The Group believes that Yisaipu is still at an early stage of its product life cycle. The Group estimates that the penetration rates for RA and AS in China are each less than 5%. Currently, the majority of the Group's sales of Yisaipu is generated from approximately 7% of the hospitals covered by the Group's sales team. The Group has completed the Phase III trial for pre-filled syringe of Yisaipu and expects to apply for manufacturing approval in the first half of 2019. If approved, it will potentially be the only TNF α inhibitor product in pre-filled format among Chinese peers. The Group is of the view that the pre-filled syringe of Yisaipu will improve convenience and compliance for patients, and contribute to further growth of Yisaipu. Outside of China, Yisaipu has been approved in 14 countries. In March 2018, the Group received the marketing authorization for Yisaipu from Thailand. Thailand is a member of the Pharmaceutical Inspection Co-operation Scheme (the "**PIC/S**"). PIC/S is a non-binding and informal co-operative arrangement between regulatory authorities in the field of GMP of medicinal products for human or veterinary use. PIC/S presently comprises 52 participating authorities from Europe, Africa, America, Asia and Australia. The marketing authorization received from a PIC/S member will facilitate the review process by other PIC/S members and benefit the Group's international registration in PIC/S countries and its further expansion into the highly regulated markets. In July 2018, the Group received the marketing authorization for Yisaipu from the Philippines which has a population over 100 million, which could potentially benefit the Group's export sales. In November 2017, the Group's manufacturing facility for Yisaipu received a *"Qualified Person's Declaration Equivalence to European Union Good Manufacturing Practice for Investigation Medicinal Products manufactured in Third Countries"*. This declaration attests to the high quality of Yisaipu as assessed under the European Union ("**EU**") standards and the good adherence of the Yisaipu manufacturing facility to the EU standards.

EPIAO is still the only rhEPO product approved by the NMPA for the following three indications: the treatment of anemia associated with chronic kidney disease ("**CKD**"), the treatment of chemotherapy-induced anemia ("**CIA**") and the reduction of allogeneic blood transfusion in surgery patients. EPIAO is included in the NRDL as a category B drug in China since 2000 and is included in the 2018 National Essential Drug List. EPIAO has consistently been the dominant market leader in the China rhEPO market since 2002 in terms of both volume and value. EPIAO is the only rhEPO product in China available at 36,000 IU (international unit per vial) dosage, and together with SEPO, claims the majority of the China rhEPO market share at 10,000 IU dosage. Future growth for EPIAO may be driven by: (1) the increase of the dialysis penetration rate among stages IV and V CKD patients, which the Group believes is substantially lower in China as compared with other countries; and (2) the increase in the applications of EPIAO in reducing allogeneic blood transfusion and in CIA oncology indication in China, which the Group believes is at a very early stage of growth. With contributions from the second brand of the Group's rhEPO products, SEPO, market coverage of the Group's rhEPO products has expanded in Grade II and Grade I hospitals in China, where sales of its rhEPO products have been experiencing significant growth. The Group expects that SEPO will continue to gain market share in the China rhEPO market. Outside of China, EPIAO has been approved in 22 countries. The multi-center biosimilar clinical trials for EPIAO in Russia and Thailand have made good progress, with patient recruitment for the maintenance period to be completed by the end of 2019. The trials are expected to be completed by 2020. The Group intends to include Ukraine in the multi-center clinical trials in 2019 to expedite patient enrollment.

Humulin was the first bio-synthetic human insulin product and was also the first medical product for human therapeutic use produced by recombinant DNA technology in the world. Humulin is licensed from Eli Lilly and Company (NYSE: LLY) ("**Lilly**"), and the Group started to consolidate the revenue of Humulin from July 2017. Diabetes is a major chronic disease in China, and China has the largest diabetes patient population in the world. The Group is of the view that Human insulin being included in the 2017 NRDL as a Class A Drug and the establishment and implementation of the tiered medical service system will lead to further growth of human insulin in lower tier markets in China.

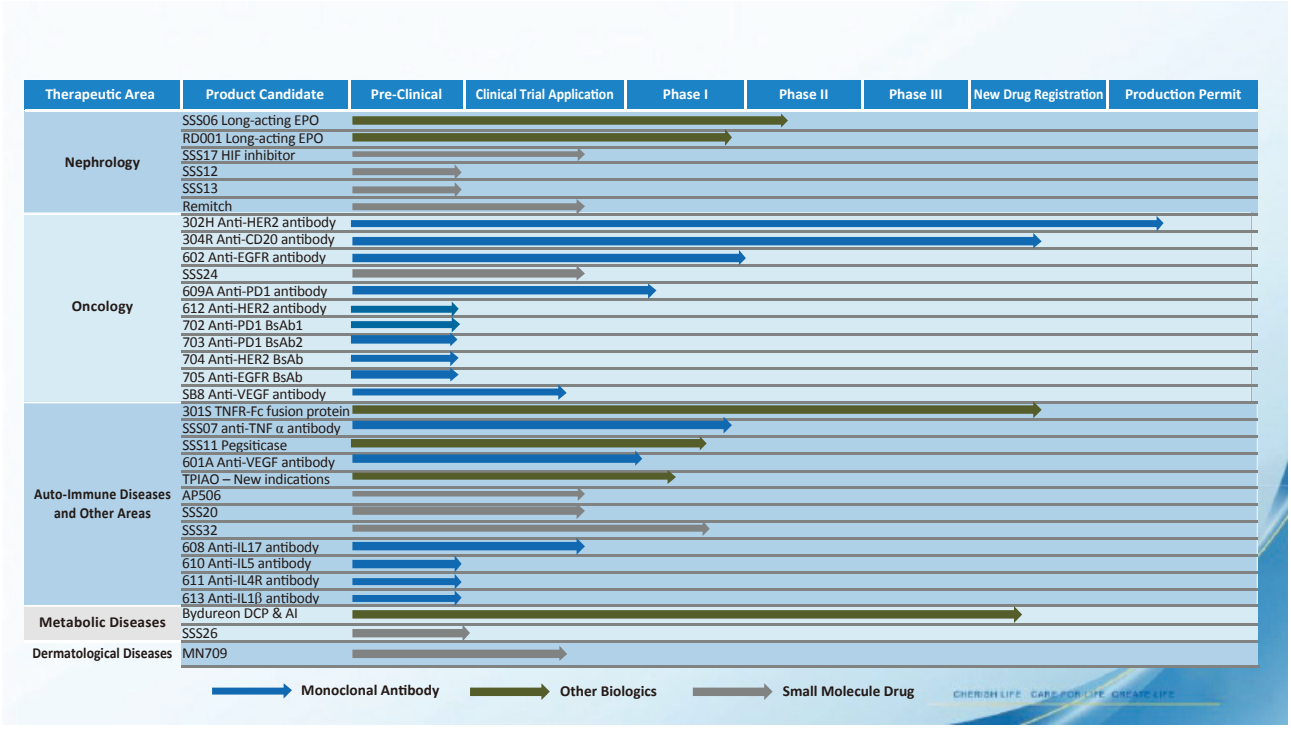
Byetta, generically known as "exenatide injection", is an injectable GLP-1 receptor agonist, administered twice daily as an adjunct to diet and exercise to improve glycemic control in adults with type 2 diabetes mellitus, which is indicated for treatment of patients who have not achieved adequate glycaemic control on metformin, sulphonylureas, or metformin plus sulphonylureas. Byetta is licensed from AstraZeneca, and the Group started to record the revenue of Byetta from October 2016. Bydureon, the weekly administered GLP-1 receptor agonist product licensed from AstraZeneca, was launched on 25 May 2018, and the Group started to record its revenue since the launch date. In "The Clinical Application of GLP-1 receptor agonists — Experts Guidance" (the "**Experts Guidance**") published in Chinese Journal of Diabetes (May 2018, Vol. 26, No. 5), the experts are of the opinion that GLP-1 receptor agonists are an important class of novel hypoglycemic drug in the treatment of type 2 diabetes mellitus, with increasingly wider clinical application; that they have reliable and safe hypoglycemic efficacy, and have additional benefits outside blood glucose reduction including body weight reduction, systolic pressure reduction and blood lipid profile improvement. The Experts Guidance recommends that GLP-1 receptor agonists can be used in mono-therapy, or in combination therapy when other multiple oral hypoglycemic drug and basal insulin fail to achieve desired glycemic control. In "Standards of Medical Care in Diabetes 2019" (the "**Standards**"), issued by American Diabetes Association, GLP-1 receptor agonists is recommended in various type 2 diabetes comorbidities scenarios as pharmacologic therapy, and the Standards stated that in most patients who need the greater glucose-lowering effect of an injectable medication, GLP-1 receptor agonists are preferred over insulin; and GLP-1 receptor agonists is also recommended as the best choice for a second agent in combination therapy for patients in whom certain comorbidities predominates.

Qiming Keli, Man Di (蔓迪), Di Su (迪蘇) and Lai Duo Fei (萊多菲) are a group of dermatology and ophthalmology drugs, indicated to treat diabetic retinopathy, alopecia areata, chronic bronchitis and chronic idiopathic urticaria, respectively. Qiming Keli is included in the 2017 NRDL as a Class B Traditional Chinese Medicine (No. 1004) for the treatment of non-proliferative retinopathy caused by type 2 diabetes.

Product Pipeline

As at 31 December 2018, amongst the 32 product candidates within the Group's active pipeline, 22 were being developed as National Class I New Drugs (國家一類新藥) in China. The Group has 11 product candidates in oncology; 12 product candidates that target auto-immune diseases including RA, and other diseases such as refractory gout and ophthalmological diseases such as AMD; six product candidates in nephrology; two product candidates in the metabolic area that target type 2 diabetes; and one product candidate in dermatology. A total of 22 of the 32 product candidates are biologics, and the other 10 are small molecules.

Robust and Innovative Product Pipeline Supported by Integrated R&D Platform



Research and Development

The Group's integrated R&D platform covers a broad range of technical expertise in the discovery and development of various innovative bio-pharmaceutical products, including antibody discovery, molecular cloning, antibody/protein engineering, gene expression, cell line construction, manufacturing process development, pilot and large scale manufacturing, quality control and assurance, design and management of pre-clinical and clinical trials, and regulatory filing and registration. The Group is experienced in R&D of mammalian cell-expressed, bacterial cell-expressed and chemically-synthesized pharmaceuticals.

The Group focuses its R&D efforts on researching and developing innovative biological products. Currently, the Group has several leading biological products in various stages of clinical development, including SSS06 (NuPIAO, the second-generation rhEPO to treat anemia), RD001 (pegylated long-acting EPO to treat anemia), SSS07 (the anti-TNF α antibody to treat RA and other inflammatory diseases), pegsiticase (a modified pegylated recombinant uricase from candida utilis to treat refractory gout), 602 (an anti-EGFR antibody to treat cancer), 601A (an anti-VEGF antibody to treat AMD and other ophthalmological diseases), 609A (an anti-PD1 antibody to treat cancer) and 301S (pre-filled syringe dosage form of Yisaipu). On the research front, the Group is developing a panel of novel biological products, including monoclonal antibodies ("**mAb**"), bi-specific antibodies and fusion proteins, and a number of small molecule drugs, both innovative and generic, in the areas of oncology, autoimmune and inflammatory diseases, nephrology, metabolic and dermatological diseases.

The Group has completed the phase III trial on the pre-filled syringe dosage form of Yisaipu (301S) and is preparing to apply for the manufacturing approval from the NMPA in the first half of 2019.

The Group has completed multiple phase I trials on NuPIAO (SSS06) in anemic patients, and has obtained an approval from the NMPA in May 2018 for phase II and phase III clinical trials. Patient enrollment is expected to begin soon.

The Group has completed a dose-escalating phase I safety and pharmacokinetics study on RD001 in healthy volunteers, and is currently planning for phase II trials in anemic patients.

The Group has completed the phase I clinical trial of a humanized anti-TNF α antibody (SSS07) in both healthy volunteers and RA patients, and is currently preparing for phase II trials in patients with RA and other inflammatory diseases.

The Group has completed a phase I trial of an anti-EGFR antibody (602) in patients with various cancers, and is currently planning advanced clinical trials of the product in patients with colorectal cancer.

The Group has started patient enrollment for the phase I clinical trials for pegsiticase (SSS11) in refractory gout patients with high uric acid level. In the United States, the Group's business partner, Selecta Biosciences, Inc. (NASDAQ: SELB) ("**Selecta**"), is actively pursuing phase II clinical development for SEL-212 (consisting of pegsiticase, co-administered with SVP-Rapamycin to prevent the formation of anti-drug antibodies) as its lead program. Selecta has recently presented interim data from its phase II trial at the 2018 annual meeting of the American College of Rheumatology (ACR) showing sustained serum uric acid (SUA) control over a five-month combination period.

In February 2018, the Group was granted a new IND approval from the NMPA for clinical trials of TPIAO in pediatric ITP indication. Patient enrollment is expected to begin soon. Clinical trials for TPIAO in surgery patients with hepatic dysfunction at the risk of thrombocytopenia is ongoing.

In June 2018, the Group received three clinical trial approvals from the NMPA for an anti-VEGF antibody (601A) for the treatment of several ophthalmological diseases, including macular edema following retinal vein occlusion (RVO), myopic choroidal neovascularization (mCNV), and diabetic retinopathy with macular edema (DME). Phase I trial in DME patients is expected to begin soon. Patient enrollment for 601A in neovascular AMD trials is currently ongoing.

As announced on 4 January 2018, one of the Group's in-licensed products, a GLP-1 receptor agonist weekly preparation, Bydureon (generic name: exenatide microsphere for injection), was approved by the NMPA as a new treatment option to improve glycemic control for patients with type 2 diabetes. The Group has launched the product, the first long-acting weekly-dosing GLP-1 receptor agonist, in the China market in May 2018.

Fluticasone Propionate Cream, a product with broad applications in the treatment of a variety of dermatological disorders, was granted a marketing approval from the NMPA on 26 July 2017. The Group has launched the product in March 2018.

On 1 February 2018, the Group received a supplemental marketing approval from the NMPA for Tacrolimus Ointment (0.03%) for pediatric indications in children aged 2–15 years old with moderate to severe atopic dermatitis. The product was launched in May 2018.

During the period from 2009 to 2013, the Group conducted an open label, multi-center, perspective phase III trial in China with 302H (賽普汀), a humanized anti-HER2 antibody for injection, in patients with HER2 over-expressing metastatic breast cancer. During the years of 2017–2018, the Group completed a thorough inspection and audition of all the clinical sites involved in the trial and the associated clinical data, with the assistance of a retained third-party clinical study audit firm. In September 2018, the Group resubmitted an NDA to the NMPA for the approval of 302H (賽普汀) for the treatment of patients with HER2 over-expressing metastatic breast cancer. The application was granted a priority review status by the NMPA.

The Group's R&D team consisting of over 330 experienced scientists under the leadership of Dr. ZHU Zhenping, the chief scientific officer of the Company, is working diligently to research and discover new medicines, to accelerate the progress of clinical development, and to bring breakthrough therapies to fulfill the unmet medical needs of patients.

Sales, Marketing and Distribution

The Group's sales and marketing efforts are characterized by a strong emphasis on academic promotion. The Group aims to promote and strengthen the Group's academic recognition and the brand awareness of its products among medical experts. The Group markets and promotes its key products mainly through its in-house team. The Group sells these products to distributors who are responsible for delivering products to hospitals and other medical institutions. The Group relies on third-party promoters to market certain products.

As at 31 December 2018, the Group's extensive sales and distribution network in China was supported by approximately 3,224 sales and marketing employees, 478 distributors and 1,927 third-party promoters. As at 31 December 2018, the Group's sales team covered over 2,000 Grade III hospitals and over 14,000 Grade II or lower hospitals and medical institutions, reaching all provinces, autonomous regions and special municipalities in China. In addition, TPIAO, Yisaipu, EPIAO, SEPO and some of the Group's other products are exported to a number of countries through international promoters.

Outlook

With the deepening of the healthcare reform in China, the Group is of the view that the pharmaceutical landscape will reshape in the coming years. The healthcare reform will favor companies with focus on innovation, manufacturing quality and market access. The preferential policies towards the innovative drugs impact on the full pharmaceutical life cycle, from R&D, regulatory review, manufacturing to payment. More government support is expected for innovative drugs and drugs with urgent clinical needs, indicating accelerated approval timeline and greater chance to be included on the NRDL. The R&D standard is raised with the aim to improve drug quality. The acceptance of overseas clinical trial data will bring in more innovative drugs to address the unmet medical needs in China. The improved living standards and an aging population demand high quality healthcare products.

The mission of the Group has been to provide innovative and affordable medicines with international quality standard to the public. The Group aims to become a China-based, leading global biopharmaceutical company by leveraging its integrated R&D, commercial and manufacturing platforms.

According to IMS, in 2018, the Group ranked the 27th in the China hospital sales market, in terms of sales value, among all the pharmaceutical companies. The Group plans to grow the sales volume of its marketed products by further penetrating into the hospitals currently covered by the Group's sales and marketing team and new hospitals to be reached and brought under coverage, through continuous reaching out to the medical profession. The current market penetration rates of the Group's core products are still relatively low, promising significant growth potentials.

The Group has consistently pursued innovation and technology excellence. Its rich pipeline now includes 32 candidates, with 22 candidates being developed as National Class I New Drugs. The Group continues to allocate resources with focus on its core therepeutical areas including oncology, autoimmune disease, nephrology and other sectors. The Group is developing a series of innovative biopharmaceutical drugs, including bi-specific antibody, fusion protein and cellular therapy. The Group will continue to build up its in-house clinical development capacity and capability on a high priority basis.

The Group continues to build up a comprehensive quality system and voluntarily adheres to global standards. The Group has proven in its track record the efficacy and safety profile of Group's products, and the Group's manufacturing facilities have passed numerous inspections conducted by the NMPA and local authorities in the past years. With the Group's approximately 38,000-liter capacity mAb facility, as well as mammalian cell-based, bacteria cell-based and small molecule manufacturing facilities and over 26 years of experience in the biological medicine manufacturing field, the Group is able to manufacture high quality pharmaceutical products with scalable manufacturing capacity at competitive cost. The Group continues to build its contract development and manufacturing (CDMO) business by leveraging its mAb manufacturing capacity. The Group is actively and selectively seeking opportunities to bring in clinical trial stage biological products in order to provide commercial manufacturing service.

The Group continues to seek selective merger and acquisition and collaboration opportunities to enrich its existing product portfolio and pipeline to sustain long-term growth. The strategic collaborations with AstraZeneca, Lilly, Toray, Samsung Bioepis and TLC are affirmations of the Group being a partner of choice to leading pharmaceutical companies around the world, and serve as stepstones for future strategic collaborations. The Group is growing its international sales through registration of existing products in new countries and registration of new products in highly regulated markets.

FINANCIAL REVIEW

Revenue

For the year ended 31 December 2018, the Group's revenue amounted to approximately RMB4,583.9 million, as compared to approximately RMB3,734.3 million for the year ended 31 December 2017, representing an increase of approximately RMB849.5 million, or approximately 22.7%. The increase was mainly attributable to the sales growth of the Group's key products.

For the year ended 31 December 2018, the Group's sales of TPIAO increased to approximately RMB1,669.5 million, as compared to approximately RMB974.8 million for the year ended 31 December 2017, representing an increase of approximately RMB694.7 million, or approximately 71.3%. Under the IMS methodology, the hospital consumption of TPIAO grew approximately 80.2% in 2018, as compared to 2017. The increase was primarily attributable to an increase in sales volume, which in turn was primarily driven by the increase in recognition of TPIAO within the medical profession and the accelerated growth due to the implementation of NRDL beginning from September 2017. For the year ended 31 December 2018, the sales of TPIAO accounted for approximately 36.3% of the Group's total sales of goods.

For the year ended 31 December 2018, the Group's sales of Yisaipu increased to approximately RMB1,111.4 million, as compared to approximately RMB1,012.9 million for the year ended 31 December 2017, representing an increase of approximately RMB98.5 million, or approximately 9.7%. Under the IMS methodology, the hospital consumption of Yisaipu grew approximately 24.1% in 2018, as compared to 2017. The increase was primarily attributable to an increase in sales volume, which in turn was driven by the accelerated growth due to the implementation of NRDL beginning from September 2017. The slower growth of the Group's reported sales of Yisaipu as compared to the hospital consumption is primarily due to the Group's improvement of its commercial policy. The new policy requires a lower level of channel stock, and as a result, the Group was able to negotiate more favorable commercial terms with the distributors. For the year ended 31 December 2018, the sales of Yisaipu accounted for approximately 24.1% of the Group's total sales of goods.

For the year ended 31 December 2018, the Group's sales of EPIAO and SEPO increased to approximately RMB896.6 million, as compared to approximately RMB855.3 million for the year ended 31 December 2017, representing an increase of approximately RMB41.3 million, or approximately 4.8%. The increase was primarily attributable to an increase in sales volume which in turn was primarily driven by the surging demand for rhEPO products in China. For the year ended 31 December 2018, the Group's sales of SEPO increased to approximately RMB192.5 million, as compared to approximately RMB150.7 million for the year ended 31 December 2017, representing an increase of approximately RMB41.7 million, or approximately 27.7%. For the year ended 31 December 2018, the Group's sales of EPIAO decreased to approximately RMB704.1 million, as compared to approximately RMB704.6 million for the year ended 31 December 2017, representing a slight decrease of approximately RMB0.5 million, or approximately 0.1%. The decrease was primarily attributable to a decrease in the ex-factory price. The second brand of the Group's rhEPO product, SEPO, performed strongly and expanded the market coverage. For the year ended 31 December 2018, the sales of EPIAO and SEPO accounted for a total of approximately 19.5% of the Group's total sales of goods.

For the year ended 31 December 2018, the Group's sales of chemical products were approximately RMB379.0 million, as compared to approximately RMB340.6 million for the year ended 2017, representing an increase of approximately RMB38.3 million, or approximately 11.3%. The increase was mainly attributable to the increased sales volume of Sparin and dermatology products which was in turn driven by surging demand.

For the year ended 31 December 2018, the Group's export sales increased to approximately RMB84.2 million, as compared to approximately RMB64.5 million for the year ended 2017, representing an increase of approximately RMB19.7 million, or approximately 30.6%. The increase was mainly attributable to an increase in export sales of EPIAO.

For the year ended 31 December 2018, the Group's other sales, primarily consisted of sales from license-in products and contract manufacturing income from Sirton Pharmaceuticals S.p.A. ("**Sirton**") and other subsidiaries of the Group, decreased to approximately RMB463.7 million, as compared to approximately RMB501.4 million for the year ended 31 December 2017, representing a decrease of approximately RMB37.7 million, or approximately 7.5%. The decrease is primarily attributable to the implementation of the two-invoice government policy, in which case the revenue is calculated by net sales instead of gross sales.

Cost of Sales

The Group's cost of sales increased from approximately RMB676.2 million for the year ended 31 December 2017 to approximately RMB877.3 million for the year ended 31 December 2018, which accounted for approximately 19.1% of the Group's total revenue for the same period. The primary reasons for the increase in the Group's cost of sales were due to the increased sales volume for the year ended 31 December 2018, as compared to the corresponding period in 2017, and the consolidation of the costs of sales of Humulin into the Group's consolidated financial statements since 1 July 2017.

Gross Profit

For the year ended 31 December 2018, the Group's gross profit increased to approximately RMB3,706.6 million, as compared to approximately RMB3,058.1 million for the year ended 31 December 2017, representing an increase of approximately RMB648.5 million, or approximately 21.2%. The increase in the Group's gross profit was broadly in line with its revenue growth during the period. The Group's gross profit margin decreased to approximately 80.9% for the year ended 31 December 2018 from approximately 81.9% for the corresponding period in 2017. The decrease was mainly attributable to the Group's consolidation of the service income associated with the promotion of Humulin since 1 July 2017, which had a lower gross profit margin than the Group's other businesses.

Other Income and Gains

The Group's other income and gains mainly comprised income associated with the fair value gain upon reclassification of an equity investment, government grants, interest income, foreign exchange gain and other miscellaneous income. For the year ended 31 December 2018, the Group's other income and gains increased to approximately RMB429.8 million, as compared to approximately RMB195.8 million for the year ended 31 December 2017, representing an increase of approximately RMB234.0 million, or approximately 119.5%. The increase was mainly attributable to the increase in fair value gain upon reclassification of an equity investment in Ascentage Pharma Group International ("**Ascentage Cayman**"), as well as foreign exchange gains and interest income derived from treasury or cash management products and other investments.

Selling and Distribution Expenses

The Group's selling and distribution expenses primarily consisted of marketing and promotion expenses, staff costs, transportation expenses, consulting fees and other miscellaneous selling and distribution expenses. For the year ended 31 December 2018, the Group's selling and distribution expenses amounted to approximately RMB1,691.2 million, as compared to approximately RMB1,332.7 million for the year ended 31 December 2017, representing an increase of approximately RMB358.5 million, or approximately 26.9%. The increase was mainly attributable to the increased promotional activities for the Group's key products and the marketing expenses associated with the launch of Bydureon. In terms of the percentage of revenue, the Group's selling and distribution expenses was 36.9% for the year ended 31 December 2018 as compared to approximately 35.7% for the year ended 31 December 2017.

Administrative Expenses

The Group's administrative expenses consisted of staff costs, professional fees, depreciation and amortization, property expenses, share-based compensation, and other miscellaneous administrative expenses. For the year ended 31 December 2018, the Group's administrative expenses amounted to approximately RMB316.8 million, as compared to approximately RMB315.1 million for the year ended 31 December 2017, representing a slight increase of approximately RMB1.6 million, or approximately 0.5%. The increase was mainly attributable to the increase in staff costs due to the expansion of business of the Group, which was partially offset by the decrease in one-off expenses. The one-off expenses include: (a) the expenses incurred in relation to the issuance of Euro-denominated zero-coupon convertible bonds (the "**Bonds**") (b) the option expenses associated with the options granted on 2 February 2017; and (c) the expenses incurred in relation to the terminated proposed acquisition of a CDMO business in Canada. Had the effects of the non-recurring items been excluded, the administrative expenses for the year ended 31 December 2018 would have been approximately RMB299.3 million, as compared to approximately RMB274.5 million for the year ended 31 December 2017, representing an increase of approximately RMB24.8 million, or approximately 9.0%. The administrative expenses (excluding the aforementioned non-recurring items) as a percentage of revenue was approximately 6.5% for the year ended 31 December 2018, as compared to approximately 7.4% for the corresponding period in 2017.

Other Expenses and Losses

The Group's other expenses and losses primarily consisted of its R&D costs. For the year ended 31 December 2018, the Group's other expenses and losses amounted to approximately RMB486.4 million, as compared to approximately RMB348.3 million for the year ended 31 December 2017, representing an increase of approximately RMB138.1 million, or approximately 39.7%. The increase was mainly due to the increase in R&D expenses which increased from approximately RMB257.3 million for the year ended 31 December 2017 to approximately RMB362.7 million for the year ended 31 December 2018.

Finance Costs

For the year ended 31 December 2018, the Group's finance costs amounted to approximately RMB138.4 million, as compared to approximately RMB141.4 million for the year ended 31 December 2017, representing a decrease of approximately RMB3.0 million, or approximately 2.1%. The decrease was mainly due to the decrease in interest expenses with the repayment of bank borrowings, which was partially offset by increase in non-cash interest expenses of the Bonds. Excluding the non-cash interest expenses of the Bonds, the finance cost decreased from approximately RMB110.0 million for the year ended 31 December 2017 to approximately RMB65.6 million for the year ended 31 December 2018, representing a significant decrease of approximately RMB44.4 million, or approximately 40.3%.

Income Tax Expense

For the year ended 31 December 2018, the Group's income tax expense amounted to approximately RMB218.3 million, as compared to approximately RMB177.6 million for the year ended 31 December 2017, representing an increase of approximately RMB40.6 million, or approximately 22.9%. The increase was mainly due to the increase of taxable income during the year ended 31 December 2018, as compared to the corresponding period in 2017. The effective tax rates for the year ended 31 December 2018 and the corresponding period in 2017 were 14.6% and 16.1% respectively. The decrease in effective tax rate was mainly attributable to the increase in tax-deductible R&D expenses and offshore income for the year ended 31 December 2018, as compared to the year ended 31 December 2017.

EBITDA and Net Profit attributable to owners of the parent

The EBITDA for the year ended 31 December 2018 increased by approximately RMB416.0 million or approximately 28.2% to approximately RMB1,892.8 million, as compared to approximately RMB1,476.8 million for the year ended 31 December 2017. The normalized EBITDA is defined as the EBITDA for the period excluding, as applicable: (a) the expenses incurred in relation to the issuance of the Bonds in an aggregate principal amount of EUR300,000,000 due 2022; (b) the option expenses associated with the options granted on 2 February 2017; (c) the fair value gain upon reclassification of an equity investment in Ascentage Cayman; (d) the income associated with the disposal of the equity investments in the subsidiaries of Ascentage Cayman; and (e) the expenses incurred in relation to the terminated proposed acquisition of a CDMO business in Canada. The Group's normalized EBITDA for the year ended 31 December 2018 increased by approximately RMB336.3 million or approximately 23.3% to approximately RMB1,781.8 million, as compared to approximately RMB1,445.5 million for the year ended 31 December 2017.

The net profit attributable to owners of the parent for the year ended 31 December 2018 was approximately RMB1,277.2 million, as compared to approximately RMB935.4 million for the year ended 31 December 2017, representing an increase of approximately RMB341.8 million, or approximately 36.5%. The normalized net profit attributable to owners of the parent is defined as the profit attributable to owners of the parent for the period excluding, as applicable: (a) the expenses incurred in relation to the issuance of the Bonds in an aggregate principal amount of EUR300,000,000 due 2022; (b) the option expenses associated with options granted on 2 February 2017; (c) the fair value gain upon reclassification of an equity investment in Ascentage Cayman; (d) the income associated with the disposal of the equity investments in the subsidiaries of Ascentage Cayman; and (e) the expenses incurred in relation to the terminated proposed acquisition of a CDMO business in Canada. The Group's normalized net profit attributable to owners of the parent for the year ended 31 December 2018 was approximately RMB1,166.1 million, as compared to approximately RMB904.0 million for the year ended 31 December 2017, representing an increase of approximately RMB262.1 million, or approximately 29.0%.

Financial Assets measured at fair value

As at 31 December 2018, other financial assets primarily comprised the equity investment in Ascentage Cayman, the investment in treasury or cash management products issued by certain banks, the investment in a listed company and the investments in private equity funds which focus on healthcare industry, which were recognised as available-for-sale investments under IAS 39 in previous years.

LIQUIDITY, FINANCIAL AND CAPITAL RESOURCES

The Group's liquidity remained strong. For the year ended 31 December 2018, the Group's operating activities generated a net cash inflow of approximately RMB1,150.3 million. As at 31 December 2018, the Group's cash and cash equivalents and pledged deposits were approximately RMB1,806.9 million.

Net Current Assets

As at 31 December 2018, the Group had net current assets of approximately RMB2,782.0 million, as compared to net current assets of approximately RMB3,080.4 million as at 31 December 2017. The current ratio of the Group increased from approximately 2.4 as at 31 December 2017 to approximately 2.7 as at 31 December 2018. The decrease in net current assets and the increase in current ratio was mainly due to the repayment of interest-bearing bank borrowings.

Funding and Treasury Policies, Borrowing and Pledge of Assets

The Group's finance department is responsible for the funding and treasury policies with regard to the overall business operation of the Group. The Company expects to fund its working capital and other capital requirements from a combination of various sources, including but not limited to internal financing and external financing at reasonable market rates. The Group continues to seek to improve the return of the equity and assets while maintaining a prudent funding and treasury policy.

As at 31 December 2018, the Group had an aggregate interest-bearing bank borrowings of approximately RMB995.4 million, as compared to approximately RMB2,134.3 million as at 31 December 2017. The decrease in bank borrowings primarily reflected the repayment of loans of RMB1,588.2 million, which was partially offset by the additional short-term bank loans of RMB399.3 million obtained in 2018. The short-term bank borrowings were obtained to replace long-term bank borrowings so as to lower interest expenses. Among the short-term deposits, none was pledged to secure bank loans as at 31 December 2018.

As at 31 December 2018, the Group had convertible bonds outstanding of approximately RMB2,299.3 million.

Gearing Ratio

The gearing ratio of the Group, which was calculated by dividing the total borrowings (excluding the Bonds) by the total equity, decreased to approximately 11.2% as at 31 December 2018 from approximately 28.0% as at 31 December 2017. The decrease was primarily due to repayment of loans.

Contingent Liabilities

As at 31 December 2018, the Group had no significant contingent liabilities.

Contractual Obligations

The Group's capital commitment amounted to approximately RMB952.8 million as at 31 December 2018, as compared to approximately RMB93.5 million as at 31 December 2017.

Foreign Exchange and Exchange Rate Risk

The Group mainly operates in China, with all material aspects of its regular business conducted in Renminbi other than: (1) the operations of Sirton; and (2) the Group's exports, which amounted to approximately RMB84.2 million, or approximately 1.8% of the Group's revenue, for the year ended 31 December 2018. Except for the operations of Sirton, the Group's exports, potential international deal-making expenditures (such as related to international licensing and acquisitions), foreign currency denominated bank deposits and the Euro-dominated Bonds, the Group believes that it does not have any other material direct exposure to foreign exchange fluctuations. As at 31 December 2018, the Group's foreign currency denominated bank deposits primarily comprised: (1) approximately USD44.9 million (equivalent to approximately RMB308.2 million) denominated in USD; (2) approximately HKD162.1 million (equivalent to approximately RMB142.1 million) denominated in Hong Kong dollars; and (3) approximately Euro87.0 million (equivalent to approximately RMB682.6 million) denominated in Euro. The Group expects that the fluctuation of the Renminbi exchange rate will not have a material adverse effect on the operations of the Group in the foreseeable future.

Significant Investments Held

During the year ended 31 December 2018, the Group did not have any significant investments.

Future Plans for Material Investments or Capital Assets

The Group estimates that the total capital expenditure of the Group for the next three years will be in the range of RMB1,200 million to RMB1,400 million. These expected capital expenditures will primarily be incurred for the maintenance of the Group's existing facilities and the expansion of the Group's production capabilities. The Group expects to finance its capital expenditures through a combination of internally generated funds and bank borrowings.

EMPLOYEES AND EMOLUMENTS POLICY

As at 31 December 2018, the Group employed a total of 5,047 employees, as compared to a total of 4,051 employees as at 31 December 2017. The staff costs, including Directors' emoluments but excluding any contributions to pension scheme, were approximately RMB1,000.7 million for the year ended 31 December 2018, as compared to approximately RMB781.0 million for the corresponding period in 2017. The Group generally formulated its employees' remuneration package to include salary, bonus and allowance elements. The compensation programs were designed to remunerate the employees based on their performance, measured against specified objective criteria. The Group also provided the employees with welfare benefits in accordance with applicable regulations and the Group's internal policies. The Company has adopted a share option scheme and other incentive initiatives such as share and cash awards for the purpose of providing incentives and rewards to eligible participants who contribute to the success of the Group's operations.

PRINCIPAL RISKS AND UNCERTAINTIES

The Group operates in a highly competitive environment, and it may not be able to compete effectively against current and future competitors.

The Group operates in a highly competitive environment. The Group may not be able to compete effectively against current and future competitors. The Group's products compete with other products or treatments for diseases for which the Group's products may be indicated. The biotechnology and pharmaceutical industries are characterized by rapid changes in technology, constant enhancement of industrial know-how and frequent emergence of new products. Many of the Group's competitors, including foreign pharmaceutical companies and large state-owned pharmaceutical companies, may have substantially greater clinical, research, regulatory, manufacturing, marketing, financial and human resources than that of the Group.

If the Group's products are excluded or removed from the national medical insurance catalogue or provincial medical insurance catalogues, the Group's sales, profitability and business prospects could be adversely affected.

As at the date of this annual report, the Group's core products, TPIAO, Yisaipu, EPIAO and SEPO, as well as certain other products including Humulin and Qiming Keli, are listed in the 2017 NRDL.

The selection of pharmaceutical products for listing in the national medical insurance catalogue or provincial medical insurance catalogues is based on a variety of factors, including clinical needs, use frequency, efficacy and price, many of which are outside of the Group's control. Moreover, the relevant PRC government authorities may also, from time to time, review and revise the scope of reimbursement for the products that are already listed in the national medical insurance catalogue or provincial medical insurance catalogues. There can be no assurance that any of the Group's products currently listed in the national medical insurance catalogue or provincial medical insurance catalogues will remain listed, or that changes in the scope of reimbursement will not negatively affect the Group's products. If any of the Group's products are removed from the national medical insurance catalogue or provincial medical insurance catalogues, or if the scope of reimbursement is reduced, demand for the Group's products may decrease and the Group's revenue and profitability could be adversely affected. Furthermore, if the Group is unable to list new products in the national medical insurance catalogue or provincial medical insurance catalogues, or add new indications to the Group's currently listed products, the Group's business prospects could be adversely affected.

If the Group is unable to win bids to sell the Group's products to PRC hospitals in the provincial tendering process, it may lose market share and the Group's revenue and profitability could be adversely affected.

In each province where the Group markets its products, it is required to participate in a government-sponsored competitive bidding process every year or every few years. During the provincial tendering process, the Group and its competitors submit pricing and other product information to local government agencies for selection, which usually is based on the bid price, clinical effectiveness and quality of each product and the reputation of the bidder. For each product category, the local government agencies will permit a limited number of products for sale in the relevant province or local district.

The Group may fail to win bids in a provincial tendering process due to various factors, including reduced demand for the relevant product, uncompetitive bidding price or local protectionism. The Group may also win bids at low prices that will limit the Group's profit margins. There can be no assurance that the Group's bids will enable it to win the tendering process and maintain the Group's market share without compromising the Group's profitability. In addition, the Group may lose in the tendering process because the relevant product is perceived to be less clinically effective than competing products or the Group's services or other aspects of the Group's operations are perceived to be less competitive.

If the Group's employees, distributors or third-party promoters engage in corrupt practices or inappropriate promotion of the Group's products, the Group's reputation could be harmed and the Group could be exposed to regulatory investigations, cost and liabilities.

The Group does not fully control the interactions between its employees, distributors and third-party promoters with hospitals, medical institutions and doctors, and they may try to increase sales volumes of the Group's products through means that constitute violations of the PRC anti-corruption, anti-bribery and other related laws. If the Group's employees, distributors or third-party promoters engage in corruption or other improper conduct that results in violation of applicable anti-corruption, anti-bribery laws in the PRC or other jurisdictions, the Group's reputation could be harmed and the Group could be exposed to regulatory investigations and penalties, including being excluded from procurement by public hospitals and other public medical institutions in the PRC.

If the Group fails to develop and commercialize new pharmaceutical products, its business prospects could be adversely affected.

The Group's long-term competitiveness depends on its ability to enhance its existing products and to develop and commercialize new biotechnology and other pharmaceutical products through its research and development activities. The development process of pharmaceutical products in general, and biopharmaceuticals in particular, is time-consuming and costly, and there can be no assurance that the Group's research and development activities will enable it to successfully develop new pharmaceutical products. Since relatively few research and development programs in the pharmaceutical industry produce a commercially viable product, a product candidate that appears promising in the early phases of development may fail to reach the market for a number of reasons, such as:

- the failure to demonstrate safety and efficacy in preclinical and clinical trials;
- the failure to obtain approvals for its intended indications from relevant regulatory bodies, such as the NMPA;
- the Group's inability to manufacture and commercialize sufficient quantities of the product economically; and
- proprietary rights, such as patent rights, held by others related to the Group's product candidate and their refusal to sell or license such rights to the Group on reasonable terms, or at all.

New pharmaceutical products must be approved by the NMPA before they can be marketed and sold in China. The NMPA requires successful completion of clinical trials and demonstration of manufacturing capability before granting approval. Clinical trials are expensive and their results are uncertain. It often takes multiple years before a medicine can be ultimately approved by the NMPA. In addition, the NMPA and other regulatory authorities may apply new standards for safety, manufacturing, packaging, and distribution of future product candidates. Complying with such standards may be time-consuming and expensive and could result in delays in obtaining NMPA approval for the Group's product candidates, or possibly preclude the Group from obtaining NMPA approval. Furthermore, the Group's future products may not be effective or may prove to have undesirable or unintended side effects, toxicities or other characteristics that may preclude the Group from

obtaining regulatory approval or prevent or limit their commercial use. Even if the Group do obtain regulatory approvals, the process may take longer than expected or desired, or such approvals may be subject to limitations on the indicated uses for which the Group may market the relevant product, therefore restricting its market size.

The Group has formed collaborative relationships with certain research institutes and companies to benefit from their expertise and resources in developing new and competitive products. However, there can be no assurance that the Group will be able to maintain such relationship or enter into new relationships. Any deterioration in the Group's existing relationships or failure to enter into new relationships with suitable research partners on commercially acceptable terms may have an adverse impact on the Group's ability to successfully develop new products, which in turn could adversely affect the Group's business, its results of operations and growth prospects.

The Group may pursue acquisitions, collaborations, licensing arrangements, joint ventures, strategic alliances, partnerships or other strategic investments or arrangements, which may fail to produce anticipated benefits and adversely affect the Group's business.

The Group continually pursues opportunities for acquisitions of products, assets or technologies, collaboration, licensing, joint ventures, strategic alliances, or partnerships that the Group believes would be complementary to or promote its existing business. Proposing, negotiating, implementing and executing on these opportunities may be a lengthy and complex process. Other companies, including those with substantially greater financial, marketing, sales, technology, or other business resources, may compete with the Group for these opportunities or arrangements. The Group may not be able to identify or complete any such transactions or arrangements in a timely manner, on a cost-effective basis, on acceptable terms, or at all.

The Group has limited experience with respect to these business development activities. Management and integration of acquisition, licensing arrangement, collaboration, joint venture or other strategic arrangement may disrupt the Group's current operations, decrease the Group's profitability, result in significant expenses, or divert management resources that otherwise would be available for the Group's existing business. The Group may not realize the anticipated benefits of any such transaction or arrangement.

Furthermore, partners, collaborators or other parties to such transactions or arrangements may fail to fully perform their obligations or meet the Group's expectations or cooperate with the Group satisfactorily for various reasons, including risks or issues related to their business and operations. There may be conflicts or other collaboration failures and inefficiencies between the Group and the other parties.

Such transactions or arrangements may also require actions, consents, approvals, waivers, participation or involvement of various degrees from third parties, such as regulators, government authorities, creditors, licensors or licensees, related individuals, suppliers, distributors, shareholders or other stakeholders or interested parties. The Group may not obtain such required or desired actions, consent, approval, waiver, participation or involvement on a timely basis, on acceptable terms, or at all.

Directors and Senior Management

DIRECTORS

Executive Directors

Dr. LOU Jing, aged 56, was appointed as a Director on 5 September 2006 and was redesignated as an executive Director on 27 November 2014. He was appointed as the chairman of the Board on 1 April 2012. Dr. Lou is also the chief executive officer and president of the Company. He is responsible for the strategic development and planning, overall operational management and major decision making of the Group. He is a co-founder of the Group and joined Shenyang Sunshine Pharmaceutical Company Limited ("**Shenyang Sunshine**") as a director of R&D in September 1995.

Dr. Lou also holds the following positions with other members of the Group:

1) director and chairman of the board of Collected Mind Limited (集思有限公司, "**Collected Mind**");

2) director of Hongkong Sansheng;

3) director of Excel Partner Holdings Limited (特隆控股有限公司, "**Excel Partner**");

4) director of Ample Harvest Investments Limited (溢豐投資有限公司, "**Ample Harvest**");

5) director, chief executive officer and president of Shenyang Sunshine and chairman of the board of Shenyang Sunshine;

6) director and general manager of Liaoning Sunshine Bio-Pharmaceutical Company Limited (遼寧三生醫藥有限公司, "**Liaoning Sunshine**");

7) director and chairman of the board of Taizhou Huan Sheng Investment Management Company Limited (泰州環晟投資管理有限公司, "**Taizhou Huan Sheng Investment**");

8) executive director of Shenzhen Baishitong Technology Development Company Limited (深圳市百士通科技開發有限公司, "**Shenzhen Baishitong**");

9) chairman of the board of Shenzhen Sciprogen Bio-pharmaceutical Co., Ltd. ("**Sciprogen**");

10) chairman of the board of Guangdong Sciprogen Bio-pharmaceutical Technology Co., Ltd. (廣東賽保爾生物醫藥技術有限公司, "**Guangdong Sciprogen**");

11) chairman of the board of Guangdong Sunshine Pharmaceutical Co., Ltd. (廣東三生製藥有限公司);

12) director of Gains Prestige Limited (澤威有限公司, "**Gains Prestige**");

13) director of Strategic International Group Limited ("**Strategic International**");

14) director and chairman of the board of Sunshine Guojian Pharmaceutical (Shanghai) Co., Ltd. ("**Sunshine Guojian**");

15) director and chairman of the board of Shanghai Xingsheng Pharmaceutical Company Limited ("**Xing Sheng**");

16) director of Thunderpure International Limited;

17) director of ThunderPharma International Limited;

18) director of Wellesley Hill Capital Limited; and

19) director of ThunderPharma International (HK) Limited.

Dr. Lou has been highly active in pharmaceutical research and has made substantial contribution to the Group's R&D of pharmaceutical products. Dr. Lou was the leading scientist and principal investigator in the Group's successful development of EPIAO and TPIAO. He co-invented a "preparation process for recombinant human thrombopoietin" and a "method for improving the stability of polypeptides in human bodies and its application" in 2000 and 2001, respectively. He has published in a number of academic journals on microbiology and medicinal biotechnology. His research has been recognized with various awards. In 2006, he was awarded the "First Prize of Shenyang Science and Technology Progress Award" (瀋陽市科學技術進步一等獎) for his research on recombinant human thrombopoietin. In 2007, he was awarded the "Third Prize of Liaoning Province Scientific and Technological Achievements" (遼寧省科技成果轉化三等獎) for his contribution to the industrialization of production of recombinant human thrombopoietin. In 2017, he was awarded "Liaoning Province Outstanding Entrepreneur" and "Friendship Award of Liaoning Province". Dr. Lou obtained a Medical Doctor degree (M.D.) in clinical medicine from Shanghai Second Military Medical University in July 1985. He conducted post-doctoral research at the National Institutes of Health of the United States after obtaining a Ph.D. degree in molecular and cell biology from Fordham University in the United States in February 1994. He also obtained an Executive Master of Business Administration from China Europe International Business School (中歐國際工商學院) in September 2008.

Mr. TAN Bo, aged 46, was appointed as a Director on 29 May 2013 and was redesignated as an executive Director on 27 November 2014. Mr. Tan is also the chief financial officer and the executive vice president of the Company. He is responsible for overseeing the financial activities and the daily operation of the business development of the Group. Mr. Tan joined Shenyang Sunshine as the chief financial officer and vice president in February 2009. He also served as a director of Hongkong Sansheng from November 2009 to November 2014.

Mr. Tan also holds the following positions with other members of the Group:

1) director of Collected Mind;

2) director of Excel Partner;

3) director of Ample Harvest;

4) director of Taizhou Huan Sheng Investment;

5) director of Sciprogen;

6) director of Guangdong Sciprogen;

7) director of Grand Path Holdings Limited;

8) director of Gains Prestige;

9) director of Strategic International;

10) director of Sunshine Guojian;

11) director of Xing Sheng; and

12) director of ThunderPharma International Limited.

Mr. Tan has extensive experience within the financial and pharmaceutical industries, and has worked in private equity, equity research and commercial sectors. Mr. Tan has served as an independent non-executive director of Globe Metals & Mining Limited (a company listed on the Australian Securities Exchange with security code GBE) since October 2013. Mr. Tan served as an independent director and the chairman of the audit, compensation and nominating committee of Tianyin Pharmaceutical Co., Inc. (a company listed on the NYSE MKT LLC with symbol TPI) from June 2012 to January 2015. He served as executive director and a member of the investment committee of Bohai Industrial Investment Fund Management Company (渤海產業投資基金管理公司), a private equity fund in China, from April 2007 to September 2008. Before that, he served as a vice president in the equity research division of Lehman Brothers Asia Limited from March 2006 to March 2007. He worked as a senior analyst at Macquarie Securities Asia in Hong Kong from October 2004 to February 2006. Mr. Tan obtained a Bachelor's degree in Economics from Renmin University of China (中國人民大學) in July 1994, a Master's degree in Economics from the University of Connecticut in December 1996 and a Master of International Management from Thunderbird School of Global Management in August 1998.

Ms. SU Dongmei, aged 49, was appointed as a Director on 11 June 2012 and was redesignated as an executive Director on 27 November 2014. Ms. Su is also the Company's senior vice president and the general manager of Shenyang Sunshine. She is responsible for strategic direction of the Group. Ms. Su joined Shenyang Sunshine as a scientist of the research and development department in January 1993, and served as a director of the R&D department from 1997 to 2006. She subsequently served as the chief technology officer responsible for R&D and manufacturing process engineering of Shenyang Sunshine from 2006 to 2008. Ms. Su was promoted to vice president of Shenyang Sunshine in April 2008. Ms. Su served as a director of Shenyang Sunshine from August 2007 to June 2013, and was re-appointed on 18 July 2016. She also served as a director of Hongkong Sansheng from November 2009 to November 2014.

Ms. Su also holds the following positions with other members of the Group:

(i) senior vice president and general manager of Shenyang Sunshine; and

(ii) supervisor of Liaoning Sunshine.

Ms. Su obtained a Bachelor's degree in Biochemistry from Jilin University (吉林大學) in July 1992 and a Master's and a Doctorate degree in Microbiology and Pharmacology from Shenyang Pharmaceutical University (瀋陽藥科大學) in June 2001 and July 2010, respectively. She has published in a number of academic journals on microbiology and medicinal biotechnology.

Mr. HUANG Bin, aged 58, was first appointed as a Director on 5 September 2006 and ceased to be a Director on 29 May 2013. Mr. Huang was re-appointed as an executive Director on 27 November 2014. Mr. Huang is also a vice president of the Company. He is in charge of the administrative management of the Group and the operations management of the Group's subsidiaries and joint ventures. Mr. Huang joined Shenyang Sunshine in 1993 as a manager of the human resources department.

Mr. Huang also holds the following positions with other members of the Group:

(i) director of Collected Mind;

(ii) director and vice president of Shenyang Sunshine;

(iii) director and general manager of Taizhou Huan Sheng Investment; and

(iv) director of Sunshine Guojian.

Mr. Huang received a diploma in Engineering from Northeast University (東北大學) in July 1987. He attended a one-year training program in business management in Tsinghua University (清華大學) from April 2000 to April 2001.

Non-executive Directors

Mr. LIU Dong, aged 46, was appointed as a non-executive Director on 27 November 2014. He is responsible for participating in the formulation of the Company's corporate and business strategies. Mr. Liu had served as a director of Shenyang Sunshine from 28 May 2013 to 18 July 2016.

Mr. Liu joined CITIC Private Equity Funds Management Co., Ltd. (中信產業基金, "**CITIC PE**") in December 2008. He is a managing director of CITIC PE in charge of investment in the healthcare sector. Mr. Liu currently serves as a director of Bluesail Medical Co., Ltd. (藍帆醫療股份有限公司, a company listed on the Shenzhen Stock Exchange with stock code 002382) since August 2018. The aforesaid listed company is in the business of disposable gloves; and it does not, nor is it likely to, compete with the Group. Mr. Liu served as a director of Zhejiang Beingmate Technology Industry & Trade Co. Ltd. from January 2010 to July 2014 (a company listed on the Shenzhen Stock Exchange with stock code 002570). Mr. Liu served as a non-executive director of Luye Pharma Group Ltd. (a company listed on the Stock Exchange of Hong Kong Limited (the "**Stock Exchange**") with stock code 2186) from March 2014 to June 2016. Mr. Liu served as a director of Biosensors International Group, Ltd. (a company listed on the SGX-ST with symbol B20) since January 2014 till around March 2018. Mr. Liu received a joint Bachelor's degree in Physics and Finance from Nankai University (南開大學) in June 1995 and an Executive Master of Business Administration from China Europe International Business School (中歐國際工商學院) in October 2011.

Mr. WANG Steven Dasong, aged 51, was appointed as a non-executive Director on 30 June 2017. He is a managing director and team leader of the Pharmaceutical Sector at CITIC PE. He has over 17 years of experience of working in top global investment banks and direct investment firms. Before joining CITIC PE, Mr. Wang was a managing director and head of APAC Healthcare Investment Banking at Credit Suisse. He previously held various senior positions at the investment banking department of UBS AG and Morgan Stanley in Hong Kong. He led a number of Asia healthcare and related deals including the initial public offerings of Sinopharm Corporation Group Co., Ltd. (國藥控股股份有限公司), Luye Pharma Group Ltd. (綠葉製藥集團有限公司) and Rici Healthcare Holdings Ltd. (瑞慈醫療服務控股有限公司), the privatization of WuXi AppTec Co., Ltd. (藥明康德新藥開發有限公司) and Simcere Pharmaceutical Group (先聲藥業集團), as well as Luye Pharma Group Ltd.'s acquisition of Acino. Before returning to China in 2007, Mr. Wang worked seven years in New York for multinational investment banks and multi-strategy hedge funds. Before his career in finance, Mr. Wang was a senior research scientist in the R&D department of Schering-Plough Corporation (now acquired by Merck & Co., Inc.), focusing on allergy and immunology with multiple published paper and patents. Mr. Wang holds a Ph.D. in Medicinal Chemistry from the Johns Hopkins University, and a MBA in Finance (with distinction) from New York University. He is a Chartered Financial Analyst.

Independent Non-executive Directors

Mr. PU Tianruo, aged 51, was appointed as an independent non-executive Director on 23 May 2015, with such appointment taking effect on 1 June 2015. He is responsible for participating in decision-making and advising on issues relating to the Company's significant events and corporate governance. Previously, he served as an independent Director and the audit committee chair of the Company from 1 September 2012 to 29 May 2013.

Mr. Pu has substantial experience in accounting and finance. He has served as an independent non-executive director of several companies, including JMU Limited (a company listed on the NASDAQ with symbol JMU) since April 2015, Autohome Inc. (a company listed on the NYSE with symbol ATHM) since December 2016, and Renren Inc. (a company listed on the NYSE with symbol RENN) since December 2016. Mr. Pu was previously the chief financial officer of Zhaopin Ltd. (a company listed on the NYSE with symbol ZPIN). Mr. Pu obtained a Bachelor's degree in English from China Foreign Affairs University (外交學院) in July 1991, a Master's degree in Accounting from the University of Illinois, College of Business Administration in May 1996 and a Master of Business Administration degree from Northwestern University Kellogg School of Management in June 2000.

Mr. David Ross PARKINSON, aged 69, was appointed as an independent non-executive Director on 23 May 2015, with such appointment taking effect on 1 June 2015. He is responsible for participating in decision-making and advising on issues relating to the Company's significant events and corporate governance.

Mr. Parkinson has served as a director of ESSA Pharma Inc. (a company listed on the NASDAQ with symbol EPIX) since June 2015, and as its president and chief executive officer since January 2016. He also serves as a director of Tocagen, Inc. and a director of CTI BioPharma, Inc. He served as a director of Cerulean Pharma, Inc. (a company listed on the NASDAQ with symbol CERU) from October 2014 to July 2017, and of Threshold Pharmaceuticals, Inc. (a company listed on the NASDAQ with symbol THLD) from May 2010 to July 2017. He served as a venture advisor at New Enterprise Associates, a venture capital firm from 2007 to 2012. Mr. Parkinson served as the president and chief executive officer at Nodality, Inc., a biotechnology company focused on personalized medicine. Previously, he served as senior vice president and head of Oncology R&D at Biogen Idec, as vice president and head of the Oncology Therapeutic Area at Amgen Inc. (a company listed on the NASDAQ with symbol AMGN), and as vice president and head of global clinical oncology development at Novartis. Mr. Parkinson has led teams successfully developing a number of cancer drugs, including Gleevec, Femara, Zometa, and Vectibix. He served as a director of the American Association for Cancer Research (AACR) from 2006 to 2009, and Chairman of AACR's Finance Committee from 2001 to 2016. He also served on the National Cancer Policy Forum of the Institute of Medicine from 2005 to 2011. Mr. Parkinson has received multiple awards and honors, including the top innovator award from the Multiple Myeloma Research Foundation in 2012 and the Wiley Medal from the U.S. Food and Drug Administration in 1997. He delivered the 12th Andrew H. Weinberg Memorial Lecture at the Harvard University School of Medicine in 2008. Mr. Parkinson obtained a Doctor of Medicine degree (M.D.) at the University of Toronto Faculty of Medicine in 1974.

Mr. MA Jun, aged 56, was appointed as an independent non-executive Director on 23 May 2015, with such appointment taking effect on 1 June 2015. He is responsible for participating in decision-making and advising on issues relating to the Company's significant events and corporate governance. Mr. Ma has served as the chief executive officer of Rong & De (Tianjin) Investment Partnership (Limited Partnership) (熔安德(天律)投資合夥企業(有限合夥)) since April 2011 in charge of fund raising and management. Mr. Ma was an attorney of Commerce & Finance Law Offices from January 2006 to April 2007.

Mr. Ma obtained a Bachelor of Laws degree (L.L.B.) from Peking University (北京大學) in July 1985. He obtained a Juris Doctor degree (J.D.) from Cornell Law School in May 1996 and was subsequently admitted to the New York bar.

SENIOR MANAGEMENT

The Company senior management comprises the Executive Directors and the following persons:

Dr. ZHU Zhenping (朱禎平), aged 54, is the president of R&D and chief scientific officer of the Company. Prior to joining the Company in January 2017, he served as the executive vice president of Global Biopharmaceuticals at Kadmon Corporation, and the president of Kadmon China from 2010 to 2016. Prior to joining Kadmon, Dr. Zhu was the vice president and the global head, Protein Sciences and Design, at Novartis, and was responsible for the discovery, design and selection of novel biologics medicines that address various human diseases from 2009 to 2010. Prior to Novartis, Dr. Zhu worked for over 12 years at ImClone Systems as Vice President of Antibody Technology and Immunology, and had led multiple teams responsible for the successful discovery and early development of several U.S. Food and Drug Administration-approved novel antibodies for various oncology indications, including cetuximab (Erbitux®), ramucirumab (Cyramza®), necitumumab (Portrazza®), and olaratumab (Latruvo®). Dr. Zhu is the inventor of both ramucirumab and necitumumab, and one of the major contributors to cetuximab and olaratumab. He earned his medical degree from Jiangxi Medical College in 1985. He received his Master of Science in Pharmacology from the Institute of Hematology, Chinese Academy of Medical Sciences (CAMS) and Peking Union Medical College (PUMC) in 1988, and his Ph.D. in Immunology and Pathology from Dalhousie University in 1993. Dr. Zhu performed his postdoctoral work in antibody and protein engineering at Genentech Inc. from 1993 to 1996. From 1996 to 2006, Dr. Zhu held an adjunct professorship at the Institute of Hematology, CAMS & PUMC. Dr. Zhu has published over 190 peer-reviewed scientific papers, and is listed as the inventor or co-inventor of more than 50 U.S. and international patents and patent applications.

Mr. XIAO Weihong (肖衛紅), aged 50, is the chief operating officer of the Company. Prior to joining the Company in March 2016, Mr. Xiao served as the chief executive officer of Hisun-Pfizer Pharmaceutical Co. Ltd. (海正輝瑞製藥有限公司), from 2012 to 2015, where he oversaw the strategy and operations. From 2007 to 2012, Mr. Xiao served as a general manager of commercial and diversified business unit of Pfizer China. Mr. Xiao worked in Pfizer China's human resources department from 1999 to 2007 and served as the human resources director of Pfizer China from 2004 to 2007. Mr. Xiao graduated from the University of International Business & Economics with a Bachelor of Economics degree in 1991. He is currently a vice president of the Chinese Pharmaceutical Enterprises Association.

Mr. MA Xin (馬新), aged 53, is a vice president of the Company and Shenyang Sunshine. He is responsible for overseeing the human resources administration of the Group. Mr. Ma also currently serves as a director of Xing Sheng, as well as a director of Sunshine Guojian. Before joining the Company in 2016, Mr. Ma worked in Hisun-Pfizer Pharmaceutical Co., Ltd. (海正輝瑞製藥有限公司) from November 2012 to December 2015, first as a senior director of the human resources department, and then as the vice president of the human resources department. From June 2007 to October 2009, he worked as a national training and sales effectiveness manager in Pfizer Investment Co., Ltd. (輝瑞投資有限公司), and served as an associated director of training from October 2009 to October 2012. From 2005 to 2007, Mr. Ma served as a national sales training manager (Oncology business unit) of Beijing Novartis Pharma Co., Ltd. (北京諾華製藥有限公司). Mr. Ma worked in GlaxoSmithKline (China) Investment Co., Ltd. (葛蘭素史克投資有限公司) as a sales training manager (Pharma, North China) from December 2001 to July 2005. Mr. Ma obtained a Bachelor of Science in Pharmacy from Tianjin Second Medical College (天津第二醫學院) in 1989.

Mr. CHEN Yongfu (陳永富), aged 62, is a vice president of the Company, in charge of administration and construction of the Group since 2018. Previously, he was also responsible for compliance and internal control. Mr. Chen has also served as a director of Hongkong Sansheng since November 2014. Mr. Chen served as a financial manager of Shenyang Sunshine from March 2003 to November 2010. Mr. Chen obtained a Bachelor's degree in Engineering and Accounting from Liaoning University (遼寧大學) in July 1983.

Ms. LIU Yanli (劉彥麗), aged 38, is the joint company secretary. She is responsible for overseeing capital market, corporate governance, legal and public relation matters of the Group. Ms. Liu has served as a director of Hongkong Sansheng since November 2014. She has also served as the supervisor of Shenzhen Baishitong since December 2014, and the supervisor of Sciprogen and Guangdong Sciprogen since December 2014. She served as a director of Sirton from January 2015 to November 2018. Ms. Liu joined Shenyang Sunshine as an international drug registration representative in January 2007. Ms. Liu served as an assistant to the chief executive officer and a project manager of foreign drug registration of Shenyang Sunshine from 2008 to 2011. Ms. Liu was responsible for various roles in the Hong Kong initial public offering of the Company. Ms. Liu obtained a Bachelor's degree in Biochemistry and Master's degree in Chemistry with Entrepreneurship from the University of Nottingham in July 2004 and December 2006, respectively.

Dr. ZHANG James Ji (張繼), aged 58, is a vice president of the Company. He was the general manager of Sunshine Guojian from November 2016 to November 2018. Prior to joining Sunshine Guojian in November 2016, Dr. Zhang worked in various senior leadership roles with China Yuanda Group (中國遠大集團, "**Yuanda**") from 2008 to 2016, including as a vice president of Yuanda, the head of Yuanda Wuhan Pharmaceutical Research Institute, the chief science officer and an executive director on the board of directors of Huadong Pharmaceutical Company Limited (華東醫藥股份有限公司) (a company listed on the Shenzhen Stock Exchange with stock code 000963), and an executive director on the board of directors of China Grand Pharmaceutical and Healthcare Holdings Limited (a company listed on the Stock Exchange with stock code 00512). From 1993 to 2008, Dr. Zhang worked in Schering-Plough Pharmaceutical Research Institute (which is now part of Merck) as a senior scientist in the inflammation, infectious disease, and allergy and immunology areas. Dr. Zhang was selected as a member of the "Thousand Talents Program." He published many articles in leading scientific journals and is the co-inventor of a U.S. patent. Dr. Zhang received a Bachelor's degree in Microbiology in 1982, and a Master's degree in Virology in 1985, both from Wuhan University (武漢大學); and received a Ph.D. in Pharmacology and Molecular Biology from Chicago Medical School in 1992.

Mr. XU Yong (徐勇), aged 54, was appointed as a general manager and director of Sciprogen in 2015. From March 2006 to December 2012, he served as a deputy general manager of Liaoning Nuokang Pharmaceutical Limited (遼寧諾康醫藥股份有限公司). Before that, Mr. Xu served as the deputy general manager of Beijing Zhongguan Venture Science and Technology Co., Ltd. (北京中關創業科技發展有限公司) from January 2002 to March 2006. From June 1995 to December 2001, he worked first as a deputy director and then as a director in the second general department of Hebei Provincial Government General Office. (河北省政府辦公廳綜合二處). Mr. Xu obtained a Bachelor's degree in Precision Machinery from Zhejiang University (浙江大學) in August 1988.

Report of Directors

The Directors are pleased to present their report together with the audited consolidated financial statements of the Group for the year ended 31 December 2018.

CORPORATE INFORMATION

The Company was incorporated in the Cayman Islands on 9 August 2006 as an exempted company with limited liability under the laws of the Cayman Islands. The Company's ordinary shares, par value of USD0.00001 each (the "**Shares**") were listed on the Main Board of the Stock Exchange on 11 June 2015 (the "**Listing Date**").

PRINCIPAL ACTIVITIES

The principal activity of the Company is investment holding and the Group is principally engaged in the development, production, marketing and sale of biopharmaceutical products in PRC. Analysis of the principal activities of the Group during the year ended 31 December 2018 is set out in the note 1 to the consolidated financial statements.

RESULTS

The results of the Group for the year ended 31 December 2018 are set out in the consolidated statement of profit or loss on page 79 of this annual report.

FINAL DIVIDEND

The Board did not recommend the payment of a final dividend for the year ended 31 December 2018 (2017: HKD6.85 cents per ordinary share).

BUSINESS REVIEW

A review of the business of the Group, a discussion on the Group's future prospects and the principal risks and uncertainties and an analysis of the Group's performance during the year ended 31 December 2018 using financial key performance indicators are provided in the section headed "Management Discussion and Analysis" on pages 7 to 27. In addition, discussions on the Group's relationships with its key stakeholders and compliance with relevant laws and regulations which have a significant impact on the Group are located respectively in the paragraph headed "Relationship with Stakeholders" and the paragraph headed "Compliance with Laws and Regulations" on pages 52 to 53 of this annual report.

FINANCIAL SUMMARY

A summary of the Group's results, assets and liabilities for the last five financial years, as extracted from the audited financial statements and reclassified as appropriate, are set out on page 5 of this annual report. This summary does not form part of the audited consolidated financial statements.

MAJOR CUSTOMERS AND SUPPLIERS

Major Customers

For the year ended 31 December 2018, the Group's sales to its five largest customers accounted for 18.1% (2017: 20.0%) of the Group's total revenue and the Group's single largest customer accounted for 5.7% (2017: 8.2%) of the Group's total revenue.

Major Suppliers

For the year ended 31 December 2018, the Group's five largest suppliers accounted for 38.7% (2017: 57.9%) of the Group's total purchases and the Group's single largest supplier accounted for 9.9% (2017: 37.8%) of the Group's total purchases.

During the year ended 31 December 2018, none of the Directors or their close associates or the shareholders (which, to the best knowledge of the Directors, own more than 5% of the number of issued shares of the Company) had any interest in the Group's five largest customers and suppliers.

PROPERTY, PLANT AND EQUIPMENT

Details of movements in the property, plant and equipment of the Company and the Group during the year ended 31 December 2018 are set out in note 14 to the consolidated financial statements in this annual report.

SHARE CAPITAL

Details of movements in the share capital of the Company during the year ended 31 December 2018 are set out in note 34 to the consolidated financial statements in this annual report.

PRE-EMPTIVE RIGHTS

There are no provisions for pre-emptive rights under the Company's articles of association (the "**Articles of Association**") and there are no statutory pre-emptive rights under the laws of the Cayman Islands, being the jurisdiction in which the Company was established, which would oblige the Company to offer new shares on a pro-rata basis to existing shareholders.

EQUITY-LINKED AGREEMENTS

Share Option Scheme

Details of the share option scheme adopted by the Company in 2015 are set out in the section headed "POST-IPO SHARE OPTION SCHEME" in this Directors' Report.

Guojian Warrant

On 1 January 2015, the Company issued the Guojian Warrant to Shanghai Junling Investment Partnership (Limited Partnership) (上海峻嶺投資合夥企業(有限合夥)) (the "**Holder**") which was beneficially owned by certain management members of Sunshine Guojian. The warrant entitled the Holder to purchase 112,882,033 Shares (as adjusted for a share subdivision in February 2015) of the Company at an exercise price of USD0.00001 (as adjusted for the said share subdivision) for each share. The warrant vested and became exercisable upon meeting certain vesting conditions. The details of the warrant had been disclosed in the Company's prospectus dated 1 June 2015 in the paragraph headed — "CP Guojian Warrant" under the "HISTORY, REORGANIZATION AND CORPORATE STRUCTURE" section.

On 29 June 2016, 18 July 2017 and 7 August 2018, 17,000,000 Shares, 6,483,320 Shares and 4,917,661 Shares were issued respectively upon the partial exercise of the Guojian Warrant by the Holder prior to its expiry. For further details, please refer to the Next Day Disclosure Returns of the Company dated 29 June 2016, 18 July 2017 and 7 August 2018. As at the end of the Reporting Period, the Guojian Warrant had expired.

Citic Options

On 4 March 2016, the Company, CITIC Hong Kong (Holdings) Limited (中信 (香港集團) 有限公司, "**CITIC Holdings**") and CITIC Pacific Limited (中信泰富有限公司, "**CITIC Pacific**") entered into an option deed (the "**Option Deed**"), pursuant to which, the Company agreed to issue to CITIC Pacific options carrying rights to subscribe for up to a total of 125,765,500 Shares of the Company at an exercise price of HKD9.10 per ordinary share, subject to certain exercise conditions (the "**CITIC Options**"). For details of the CITIC Options, please refer to the announcements of the Company dated 4 March 2016 and the circular of the Company dated 25 April 2016. Pursuant to the terms of the Option Deed, the CITIC Options shall expire within 36 months of the date of the signing of the Option Deed. Accordingly, the CITIC Options had expired on 4 March 2019. As at the date of expiry, no CITIC Options had been exercised pursuant to the Option Deed.

Except as disclosed above, the Company has not entered into any equity-linked agreements in 2018, nor did there subsist any equity-linked agreement entered into by the Company at 31 December 2018.

RESERVES

Details of movements in the reserves of the Company and the Group during the year ended 31 December 2018 are set out on page 83 in the consolidated statement of changes in equity in this annual report.

DISTRIBUTABLE RESERVES

As at 31 December 2018, the Company's reserves available for distribution, calculated in accordance with the provisions of the Companies Laws of Cayman Islands, amounted to approximately RMB4,689.1 million (as at 31 December 2017: RMB4,559.6 million).

BANK LOANS AND OTHER BORROWINGS

Particulars of bank loans and other borrowings of the Company and the Group as at 31 December 2018 are set out in note 31 to the consolidated financial statements.

DIRECTORS

The Directors of the Company during the year ended 31 December 2018 and up to the date of this annual report are:

Executive Directors:

Dr. LOU Jing *(Chairman & Chief Executive Officer)*	(appointed on 5 September 2006)
Mr. TAN Bo	(appointed on 29 May 2013)
Ms. SU Dongmei	(appointed on 11 June 2012)
Mr. HUANG Bin	(appointed on 27 November 2014)

Non-executive Directors:

Mr. LIU Dong	(appointed on 27 November 2014)
Mr. WANG Steven Dasong	(appointed on 30 June 2017)

Independent non-executive Directors:

Mr. PU Tianruo	(appointed on 23 May 2015, effective on 1 June 2015)
Mr. David Ross PARKINSON	(appointed on 23 May 2015, effective on 1 June 2015)
Mr. MA Jun	(appointed on 23 May 2015, effective on 1 June 2015)

In accordance with article 84(1) of the Articles of Association, one-third of the Directors for the time being (or if their number is not a multiple of three, the number nearest to but not less than one-third) will retire from office by rotation and will be eligible for re-election and re-appointment at every annual general meeting ("**AGM**"), provided that every Director shall be subject to retirement by rotation at least once every three years. Details of the Directors to be re-elected and elected at the AGM will be set out in the circular to the shareholders of the Company prior to its upcoming AGM.

DIRECTORS AND SENIOR MANAGEMENT

Biographical details of the Directors and senior management of the Company are set out on pages 28 to 35 of this annual report.

CONFIRMATION OF INDEPENDENCE OF INDEPENDENT NON-EXECUTIVE DIRECTORS

Each of the independent non-executive Directors has confirmed his/her independence pursuant to Rule 3.13 of the Rules Governing the Listing of Securities on the Stock Exchange (the "**Listing Rules**"). The Company considers all of the independent non-executive Directors to be independent in accordance with Rule 3.13 of the Listing Rules.

DIRECTORS' SERVICE CONTRACTS

Dr. LOU Jing, being one of the executive Directors, has entered into a service contract with the Company for an initial term of three years commencing from the date of his appointment and continue for a period of three years after or until the third AGM of the Company since the Listing Date (whichever is earlier), which shall be automatically renewed for successive periods of three years until terminated in accordance with the terms and conditions of the service contract or by either party giving to the other prior notice in writing.

Each of Mr. TAN Bo and Ms. SU Dongmei, both executive Directors, has entered into a service contract with the Company for an extended term of three years commencing from 11 June 2018 until the date of the AGM of the Company in the year 2021 (or, in case there is no AGM in such year, until 20 June 2021), until termination in accordance with the terms and conditions of the service contract, or by either party giving to the other prior notice in writing. Mr. HUANG Bin, the other executive Director, has entered into a service contract with the Company for an extended term commencing from 11 June 2018 until 31 December 2019, until termination in accordance with the terms and conditions of the service contract or by either party giving to the other prior notice in writing.

Each of Mr. LIU Dong and Mr. WANG Steven Dasong, the two non-executive Directors, has entered into an appointment letter with the Company for an extended term of three years commencing from 20 June 2018 until the date of the AGM of the Company in the year 2021 (or, in case there is no AGM in such year, until 20 June 2021); and such term shall be automatically extended upon each expiry for successive tri-annual terms, subject to review and amendment (including non-renewal) by the Board of the terms concerning such renewal, until termination in accordance with the terms and conditions of the appointment letter, or by either party giving to the other prior notice in writing.

Each of the independent non-executive Directors entered into an appointment letter with the Company on 25 April 2016. The term of office of each of the independent non-executive Directors has commenced from the date of his appointment letter (being 25 April 2016) until 28 June 2019, subject to re-election and retirement as and when required by the Articles of Association.

Save as disclosed above, none of the Directors has a service contract which is not determinable by the Group within one year without payment of compensation (other than statutory compensation).

The Company's Directors' service contracts and appointment letters may be renewed from time to time, and their terms of appointment are subject to re-election and retirement as and when required by the Articles of Association.

DIRECTORS' INTERESTS IN TRANSACTIONS, ARRANGEMENTS AND CONTRACTS OF SIGNIFICANCE

Other than those transactions disclosed in note 42 to the consolidated financial statements and in the section "Connected Transactions" below, no Director had a material interest, either directly or indirectly, in any transactions, arrangements and contracts of significance to the business of the Group to which the Company, or any of its subsidiaries or fellow subsidiaries was a party during the year ended 31 December 2018.

CONTROLLING SHAREHOLDERS' INTERESTS IN CONTRACTS

Save as disclosed in this annual report, at no time during the year had the Company or any of its subsidiaries entered into any contract of significance with the controlling shareholder (as defined in the Listing Rules) or any of its subsidiaries, nor had any contract of significance been entered into for the services provided by the controlling shareholder or any of its subsidiaries to the Company or any of its subsidiaries.

MANAGEMENT CONTRACTS

No contracts concerning the management and administration of the whole or any substantial part of the business of the Company were entered into or existed during the year ended 31 December 2018.

EMOLUMENT POLICY

A remuneration committee was set up for reviewing the Group's emolument policy and structure for all remuneration of the directors and senior management of the Group, having regard to the Group's operating results, individual performance of the directors and senior management and comparable market practices.

Details of the emoluments of the Directors and five highest paid individuals for the year ended 31 December 2018 are set out in notes 8 and 9 to the consolidated financial statements.

RETIREMENT AND EMPLOYEE BENEFITS SCHEME

Details of the retirement and employee benefits scheme of the Company are set out in note 10 and note 33 to the consolidated financial statements.

CHANGE TO INFORMATION IN RESPECT OF DIRECTORS

Save as disclosed in the section headed "Directors and Senior Management" in this annual report, there was no change to any of the information required to be disclosed in relation to any Director pursuant to paragraphs (a) to (e) and (g) of rule 13.51(2) of the Listing Rules for the year ended 31 December 2018.

DIRECTORS' AND CHIEF EXECUTIVE'S INTERESTS AND SHORT POSITIONS IN SHARES, UNDERLYING SHARES AND DEBENTURES

As at 31 December 2018, the interests and short positions of the Directors and the chief executives of the Company in the shares, underlying shares and debentures of the Company or any of its associated corporations (within the meaning of Part XV of the Securities and Futures Ordinance (the "**SFO**")) which had been notified to the Company and the Stock Exchange pursuant to Divisions 7 and 8 of Part XV of the SFO (including interests and short positions which they were taken or deemed to have taken under such provisions of the SFO), or which were recorded in the register required to be kept pursuant to section 352 of the SFO or as otherwise notified to the Company and the Stock Exchange pursuant to the Model Code for Securities Transactions by Directors of Listed Issuers (the "**Model Code**") as set out in Appendix 10 of the Listing Rules were as follows:

Interest in the Company

Name and Position	Nature of Interest	Number of Shares held	Approximate Percentage of all Shares in Issue[1]
LOU Jing[2]	Beneficial owner	660,000[L]	0.03%
Executive Director	Beneficiary of a trust	599,367,030[L]	23.56%
	Beneficiary of a trust	47,946,010[L]	1.88%
		Total: 647,973,040[L]	25.47%
TAN Bo[3]	Beneficial owner	660,000[L]	0.03%
Executive Director	Interest in a controlled corporation	116,985,920[L]	4.60%
		Total: 117,645,920[L]	*4.62%
SU Dongmei[4]	Beneficial owner	660,000[L]	0.03%
Executive Director	Interest in a controlled corporation	24,555,130[L]	0.97%
		Total: 25,215,130[L]	*0.99%
HUANG Bin[5]	Beneficial owner	660,000[L]	0.03%
Executive Director	Interest in a controlled corporation	32,197,350[L]	1.27%
		Total: 32,857,350[L]	*1.29%

Notes:

(L): denotes long position

* Figures shown as total may not be an arithmetic aggregation of the figures being added up due to rounding adjustment.

(1) The calculation is based on the total number of 2,543,714,551 Shares in issue as at the 31 December 2018.

(2) LOU Jing was granted 660,000 share options by the Company on 2 February 2017, representing 660,000 Shares upon full exercise. LOU Jing was a beneficiary of an unnamed trust which was interested in 599,367,030 Shares and therefore LOU Jing was deemed to be interested in all such Shares. LOU Jing was also a settlor and a beneficiary of another unnamed trust which was interested in 41,746,000 Shares that was held on trust for LOU Jing and in another 6,200,010 Shares held by it, and therefore LOU Jing was deemed to be interested in all such Shares.

(3) TAN Bo was granted 660,000 share options by the Company on 2 February 2017, representing 660,000 Shares upon full exercise. TAN Bo directly held the entire issued share capital of Triple Talent Enterprises Limited ("**TTE**") and therefore was deemed to be interested in the same number of Shares in which TTE was interested (i.e. 116,985,920 Shares).

(4) SU Dongmei was granted 660,000 share options by the Company on 2 February 2017, representing 660,000 Shares upon full exercise. SU Dongmei directly held the entire issued share capital of Joint Palace Group Limited ("**JPG**") and therefore was deemed to be interested in the same number of Shares in which JPG was interested (i.e. 24,555,130 Shares).

(5) HUANG Bin was granted 660,000 share options by the Company on 2 February 2017, representing 660,000 Shares upon full exercise, which will be cancelled as agreed by HUANG Bin. The exercise price of such options is HK$7.62 per Share. HUANG Bin directly held the entire issued share capital of Known Virtue International Limited ("**KVI**") and therefore was deemed to be interested in the same number of Shares in which KVI was interested (i.e. 32,197,350 Shares).

Save as disclosed above, as at 31 December 2018, none of the Directors or the chief executives of the Company had or was deemed to have any interest or short position in the shares, underlying shares or debentures of the Company or its associated corporations (within the meaning of Part XV of the SFO) that was required to be notified to the Company and the Stock Exchange pursuant to Divisions 7 and 8 of Part XV of the SFO (including interests and short positions which they were taken or deemed to have taken under such provisions of the SFO), or required to be recorded in the register required to be kept under Section 352 of the SFO, or as otherwise notified to the Company and the Stock Exchange pursuant to the Model Code.

DIRECTORS' RIGHTS TO ACQUIRE SHARES OR DEBENTURES

Save as otherwise disclosed in this annual report, no rights to acquire benefits by means of the acquisition of Shares in or debentures of the Company were granted to any Directors or their respective spouse or children under 18 years of age, or were any such rights exercised by them; or was the Company and any of its subsidiaries a party to any arrangement to enable the Directors, or their respective spouse or children under 18 years of age, to acquire such rights in any other body corporate during the year ended 31 December 2018.

SUBSTANTIAL SHAREHOLDERS' INTERESTS AND SHORT POSITIONS IN SHARES AND UNDERLYING SHARES

As at 31 December 2018, to the best knowledge of the Directors, the following persons (not being a Director or chief executives of the Company) had interests or short positions in the shares or underlying shares which fall to be disclosed to the Company under the provisions of Divisions 2 and 3 of Part XV of the SFO as recorded in the register required to be kept by the Company pursuant to section 336 of the SFO:

Name of Shareholder	Nature of Interest	Number of Shares Held	Approximate Percentage of all Shares in Issue[1]
Decade Sunshine Limited ("**DSL**")	Beneficial owner	599,367,030[L]	23.56%
Century Sunshine Limited ("**CSL**")[2]	Interest in a controlled corporation	599,367,030[L]	23.56%
XING Lily[3]	Interest in a controlled corporation[2]	599,367,030[L]	23.56%
	Interest of spouse[3]	48,606,010[L]	1.91%
		Total: 647,973,040[L]	25.47%
Lambda International Limited[2]	Interest in a controlled corporation	599,367,030[L]	23.56%
TMF (Cayman) Ltd.[4]	Trustee	713,207,520[L]	28.04%
CS Sunshine Investment Limited[5]	Beneficial owner	472,212,360[L]	18.56%
CPEChina Fund, L.P.[5]	Interest in a controlled corporation	472,212,360[L]	18.56%
CITIC PE Associates, L.P.[5]	Interest in a controlled corporation	472,212,360[L]	18.56%
CITIC PE Funds Limited[5]	Interest in a controlled corporation	472,212,360[L]	18.56%
CITICPE Holdings Limited[5]	Interest in a controlled corporation	472,212,360[L]	18.56%
CLSA Global Investment Management Limited[5]	Interest in a controlled corporation	472,212,360[L]	18.56%
CITIC Securities International Company Limited[5]	Interest in a controlled corporation	472,212,360[L]	18.56%
CITIC Securities Company Limited[5]	Interest in a controlled corporation	472,212,360[L]	18.56%
JPMorgan Chase & Co.	Interest in a controlled corporation[L]	19,594,853[L]	0.77%
	Investment manager	25,328,500[L]	1.00%
	Approved lending agent	79,124,819[L]&[P]	3.11%
	Person having a security interest in shares	23,866,278[L]	0.94%
		Total: 147,914,450[L]	*5.81%
	Interest in Controlled Corporation[S]	14,448,168[S]	0.57%

Notes:

(L): denotes long position

(S): denotes short position

(P): denotes lending pool

* Figure shown as total may not be an arithmetic aggregation of the figures being added up due to rounding adjustment.

(1) The calculation is based on the total number of 2,543,714,551 Shares in issue as at 31 December 2018.

(2) DSL was wholly-owned by CSL and therefore CSL is deemed to be interested in 599,367,030 Shares held by DSL; further, 42.60% and 35.65% of CSL were respectively controlled by XING Lily and Lambda International Limited, who are therefore deemed to be interested in such 599,367,030 Shares.

(3) XING Lily's spouse, LOU Jing, was interested in 48,606,010 Shares and therefore XING Lily is deemed to be interested in the same number of Shares.

(4) TMF (Cayman) Ltd. was the trustee with respect to four unnamed trusts, which respectively were interested in 599,367,030, 45,894,480, 20,000,000, and 47,946,010 Shares, and therefore TMF (Cayman) Ltd. is deemed to be interested in all such Shares.

(5) CS Sunshine Investment Limited was wholly-owned by CPE China Fund, L.P. The general partner of CPEChina Fund, L.P. was CITIC PE Associates, L.P., an exempted limited partnership registered under the laws of the Cayman Islands whose general partner was CITIC PE Funds Limited, an exempted company incorporated in the Cayman Islands with limited liability. CITICPE Holdings Limited exercised 100% control over CITIC PE Funds Limited. 35% of CITICPE Holdings Limited was controlled by CLSA Global Investment Management Limited, which therefore is deemed to be interested in the Shares in which CITICPE Holdings Limited was interested. CITIC Securities International Company Limited exercised 100% control over CLSA Global Investment Management Limited. CITIC Securities Company Limited exercised 100% control over CITIC Securities International Company Limited.

Save as disclosed above, as at 31 December 2018, the Directors were not aware of any persons (who were not Directors or chief executives of the Company) who had an interest or short position in the shares or underlying shares of the Company which would fall to be disclosed under Divisions 2 and 3 of Part XV of the SFO, or which would be required, pursuant to Section 336 of the SFO, to be entered in the register referred to therein.

POST-IPO SHARE OPTION SCHEME

Pursuant to a written resolution passed by the then sole shareholder of the Company on 23 May 2015, the Company adopted a share option scheme pursuant to Chapter 17 of the Listing Rules (the "**Scheme**"). The details of the Scheme were disclosed in the Company's prospectus dated 1 June 2015 in the section headed "Statutory and General Information — 5. Post-IPO Share Option Scheme" in Appendix IV. Under the Scheme, the Company was authorised to issue up to 242,439,857 ordinary shares (subject to possible adjustments), which represented approximately 9.53% of the issued shares as at 31 December 2018. The purpose of the Scheme is to provide selected participants with the opportunity to acquire proprietary interests in the Company and to encourage selected participants to work towards enhancing the value of the Company and its Shares for the benefit of the Company and its Shareholders as a whole.

Unless approved by the Shareholders in accordance with the terms of the Scheme, the total number of Shares issued and to be issued upon exercise of the options granted and to be granted under the Scheme and any other share option scheme(s) of the Company to each selected participant (including both exercised and outstanding options) in any 12 month period shall not exceed 1% of the total number of Shares in issue. An option may be exercised in accordance with the terms of the Scheme at any time during a period to be determined and notified by the Directors to each grantee, which period may commence on a day after the date upon which the offer for the grant of options is made but shall end in any event not later than 10 years from the date of grant of the option subject to the provisions for early termination under the Scheme. A nominal consideration of RMB1.00 is payable upon acceptance of the grant of an option. For details, please refer to Appendix IV to the Company's prospectus dated 1 June 2015.

The Scheme will continue to be in effect for a term of ten years unless terminated sooner, and has a remaining term of approximately 6 years as at the date of this report. On 28 June 2016, the Company amended the Scheme to include nominees and/or trustees of employee benefit trusts set up for the employees of the members of the Group as participants eligible to participate in the Scheme.

The following share options were outstanding under the Scheme as of 31 December 2018:

	NUMBER OF SHARE OPTIONS											
NAME OR CATEGORY OF PARTICIPANT	AS AT 1 JANUARY 2018	GRANTED DURING THE YEAR	EXERCISED DURING THE YEAR	FORFEITED DURING THE YEAR	EXPIRED DURING THE YEAR	AS AT 31 DECEMBER 2018	DATE OF GRANT OF SHARE OPTIONS	EXERCISE PERIOD OF SHARE OPTIONS	EXERCISE PRICE OF SHARE OPTIONS *(HKD PER SHARE)*	PRICE OF THE COMPANY'S SHARES IMMEDIATELY BEFORE THE GRANT DATE OF OPTIONS *(HKD PER SHARE)*	WEIGHTED AVERAGE PRICE OF THE COMPANY'S SHARES IMMEDIATELY BEFORE THE EXERCISE DATE *(HKD PER SHARE)*	WEIGHTED AVERAGE PRICE OF THE COMPANY'S SHARES AT EXERCISE DATE OF THE OPTIONS *(HKD PER SHARE)*
The Empire Trust*	20,000,000	0	0	0	–	20,000,000**	2 February 2017	From 2 August 2018 to 2 February 2027***	7.62	7.37	–	–
	20,000,000	0	0	0	–	20,000,000**						

* The Empire Trust is a trust established by the Company for beneficiaries who are employees of the Company and its subsidiaries and affiliates, and any other persons as nominated from time to time by the advisory committee of The Empire Trust that is established with the authority of the Board.

** 660,000 share options granted for the benefit of Mr. HUANG Bin, an executive Director, will be cancelled further to the agreement by Mr. HUANG Bin.

*** Share options granted are subject to vesting conditions.

Please refer to note 35 to the consolidated financial statements for the accounting policy adopted for share options.

PURCHASE, SALE OR REDEMPTION OF LISTED SECURITIES

During the Reporting Period, the Company had repurchased a total of 4,730,000 Shares on the Stock Exchange at an aggregate cash consideration of HKD46,273,054.51 (excluding expenses). On 3 January 2019, the Company had further repurchased a total of 5,000,000 Shares on the Stock Exchange at an aggregate cash consideration of HKD45,348,633.90 (excluding expenses). All the Shares repurchased by the Company during the year ended 31 December 2018 and on 3 January 2019 had been canceled by the Company by the date of this report. The financial position of the Company is solid and healthy. The Board believes the share repurchases and subsequent cancellation of the repurchased Shares can enhance the value of the Shares thereby improving the return to shareholders of the Company. In addition, the share repurchases reflect the confidence of the Company in its business development and the long-term prospects of the industry. The Board believes that the share repurchases are in the interests of the Company and its shareholders as a whole.

Details of shares repurchased during the year ended 31 December 2018 are set out as follows:

Date of repurchases	Number of Shares purchased on the Stock Exchange	Price paid per Share Highest	Price paid per Share Lowest	Aggregate consideration paid
19 December 2018	3,361,500	HKD9.90	HKD9.67	HKD32,922,221.67
20 December 2018	1,029,000	HKD9.81	HKD9.58	HKD10,119,961.49
21 December 2018	22,500	HKD9.50	HKD9.47	HKD214,579.67
28 December 2018	317,000	HKD9.50	HKD9.42	HKD3,016,291.68
Total	**4,730,000**			**HKD46,273,054.51**

Save as the aforesaid repurchases of shares, there was no purchase, sale and redemption of any listed securities of the Company by the Company or any of its subsidiaries for the year ended 31 December 2018.

DISCLOSURE PURSUANT TO RULES 13.18 AND 13.21 OF THE LISTING RULES

On 22 February 2016, Hongkong Sansheng, a wholly-owned subsidiary of the Company, entered into a Hong Kong dollar equivalent RMB2,200,000,000 term loan facility (the "**Loan Facility**") with Ping An Bank Company Limited (平安銀行股份有 限公司). The funds from the Loan Facility were used for acquiring further equity interests in Sunshine Guojian.

The Loan Facility is to be repaid in five installments with the last instalment due on the date falling 36 months after the first utilization date. As at 31 December 2018, the outstanding amount owing by the Hongkong Sansheng under the Loan Facility was RMB517.8 million.

The details of the Loan Facility are set out in the announcement of the Company dated 22 February 2016.

Pursuant to the terms of the Loan Facility, Hongkong Sansheng shall procure that Dr. LOU Jing, a controlling shareholder of the Company (as defined in the Listing Rules), will remain a controlling shareholder of the Company for as long as any amount is outstanding under the Loan Facility. As at 31 December 2018, the controlling shareholders of the Company (including DSL and Dr. LOU Jing through his associates and close relatives) collectively controlled 866,945,920 Shares of the Company (representing approximately 34.08% of the then issued share capital of the Company); and as at the date of this annual report, there was no change in the Shares collectively controlled by the controlling shareholders, which represented 34.21% of the issued share capital of the Company at such time.

Save as disclosed above, the Directors are not aware of any other circumstances which would give rise to a disclosure obligation pursuant to the requirements under Rules 13.18 and 13.21 of the Listing Rules as at 31 December 2018.

CONVERTIBLE BONDS

On 12 July 2017, the Group, through Strategic International, a direct wholly-owned subsidiary of the Company, conducted an international offering of Euro-denominated zero-coupon convertible bonds, or the Bonds (as defined above), in an aggregate principal amount of EUR300,000,000 due 2022, which is unconditionally and irrevocably guaranteed by the Company. The issue of the Bonds was completed on 21 July 2017. The listing of and permission to deal in the Bonds became effective on 24 July 2017. The information regarding the Bonds is summarized in note 32 to the consolidated financial statements and the Company's announcements dated 12 July 2017, 13 July 2017 and 21 July 2017.

The Bonds constitute direct, unconditional, unsubordinated and (subject to the provision relating to the negative pledge in respect thereof) unsecured obligations of Strategic International and shall rank *pari passu* and without any preference or priority among themselves. The successful issue of the Bonds represents an opportunity for 3SBio to improve the liquidity position of the Group, to reduce the financing costs of the Group and to raise further working capital of the Group.

Use of Proceeds of the Bonds

The net proceeds of approximately EUR295,898,164 represents a net issue price of approximately HKD14.04 per conversion share based on the initial conversion price of HKD14.28 per conversion share. As disclosed in the announcement of the Company dated 12 July 2017 in relation to the proposed issue of the Bonds (the "**Bonds Announcement**"), the net proceeds from the Bonds were proposed to be used for repaying the loans of the Group, future merger and acquisitions, R&D, purchase of operation facilities and other general corporate purposes. As of 31 December 2018, RMB1,107,212,000 of the proceeds of the Bonds were allocated or applied to repaying the loans of the Group, merger and acquisitions, purchase of operation facilities and other general corporate purposes.

It is estimated that the remaining balance of the proceeds of the Bonds, approximately RMB1,183,248,000, will be allocated or applied in accordance with the proposed uses as disclosed in the Bonds Announcement and is expected to be fully utilized in three to five years.

Conversion Price and Shares to be Issued upon Full Conversion

As at 31 December 2018, the outstanding principal amount of the Bonds was EUR300,000,000. The initial conversion price of the Bonds was HKD14.28 per conversion share, which represents (i) a premium of approximately 40% over the closing price of HKD10.20 per Share as quoted on the Stock Exchange on 12 July 2017 (being the trading day on which the terms of the issue of the Bonds were fixed) and (ii) a premium of approximately 38.69% over the average closing price of approximately HKD10.296 as quoted on the Stock Exchange for the five consecutive trading days up to and including 12 July 2017. Assuming full conversion of the Bonds based on such initial conversion price, the total number of shares issued by the Company would be 2,732,077,996 Shares as at 31 December 2018. The Company has a general mandate sufficient to cover the shares issued upon full conversion of the Bonds.

The following table summaries the potential effects on the shareholding structure of the Company as a result of the full conversion of the Bonds:

	As at 31 December 2018		Assuming the Bonds are fully converted at the initial Conversion Price	
Name of Shareholders	Number of Shares	Approximate % of total issued Shares	Number of Shares	Approximate % of the enlarged issued Shares
Decade Sunshine Limited	599,367,030	23.56%	599,367,030	21.94%
CS Sunshine Investment Limited	472,212,360	18.56%	472,212,360	17.28%
Hero Grand Management Limited(1)	47,946,010	1.88%	47,946,010	1.75%
Directors and Chief Executive(2)	173,738,400	6.83%	173,738,400	6.36%
Other public shareholders	1,250,450,751	49.16%	1,250,450,751	45.77%
Bondholders	—	—	188,363,445	6.89%
Total	**2,543,714,551**	**100.00%**	**2,732,077,996**	**100.00%**

Notes:

(1) Hero Grand Management Limited ("**Hero Grand**") is owned by an unnamed trust that is owned as to 100% by TMF (Cayman) Ltd. as the trustee, and Dr. LOU Jing (Chairman of the Company) is the settlor and a beneficiary of the trust. As at 31 December 2018, Hero Grand held 1.88% of the total share capital of the Company, of which 1.64% was held on trust for Dr. LOU Jing and 0.24% was held by itself.

(2) The Directors and chief executive (other than Dr. LOU Jing) held 6.83% of the total share capital of the Company in aggregate as at 31 December 2018.

(3) The percentages are subject to rounding difference, and figures shown as totals may not be an arithmetic aggregation of the figures preceding them if any.

CONNECTED TRANSACTIONS

Termination of the Shareholders Agreement and of the Proposed Acquisition of CDMO Business

On 1 September 2017, the Group entered into a shareholders agreement (the "**Shareholders Agreement**") with certain funds (including, CPEChina Fund II, L.P., CPEChina Fund IIA, L.P., and CT Biomanufacturing Limited, collectively as "**CPE Funds**") associated with CS Sunshine Investment Limited, a substantial shareholder of the Company, pursuant to which, a joint venture (the "**CDMO JV**") was established. On the same date, the CDMO JV entered into an asset purchase agreement (the "**Asset Purchase Agreement**") with a Canada-based biologics manufacturer, Therapure Biopharma Inc. (the "**Seller**"), to acquire its CDMO business, Therapure Biomanufacturing, for USD290 million.

As certain condition(s) precedent under the Asset Purchase Agreement were not satisfied or waived on or before the relevant date, the Asset Purchase Agreement lapsed and CDMO JV served a notice to the Seller in writing to terminate the Asset

Purchase Agreement on 1 May 2018. Consequently, on 1 May 2018, the Group and CPE Funds entered into a termination agreement, pursuant to which, the Shareholders Agreement was terminated. An exclusivity agreement was entered into by the Company and, among others, CPE Funds and the Seller in order to explore alternate business opportunities and arrangements with respect to the CDMO business, and such exclusivity agreement expired on 1 June 2018.

For details of the above-mentioned matters, please refer to the announcements of the Company dated 3 September 2017, 13 October 2017, 27 December 2017, 1 May 2018 and the circular of the Company dated 25 October 2017.

Connected transaction in relation to the Facility Agreement with Medical Recovery

On 17 July 2018, Strategic International, a direct wholly-owned subsidiary of the Company, entered into a facility agreement (the "**Facility Agreement**") with Medical Recovery Limited ("**Medical Recovery**"), pursuant to which, Strategic International agreed to provide a loan (the "**Loan**") to Medical Recovery in the principal amount of USD30,000,000 with an interest rate of 4% per annum. In connection with entering into the Facility Agreement, a debenture was made between Medical Recovery as chargor and Strategic International as chargee, pursuant to which, all assets of Medical Recovery was charged to Strategic International.

Medical Recovery is one of the controlling shareholders of the Company and therefore, the provision of the Loan under the Facility Agreement constitutes a connected transaction of the Company under Chapter 14A of the Listing Rules. As the highest applicable percentage ratio in respect of the provision of the Loan under the Facility Agreement was more than 0.1% but less than 5%, the Facility Agreement and the transactions contemplated thereunder are subject to reporting and announcement requirements but are exempt from the independent shareholders' approval requirements under the Listing Rules.

The purpose of the Loan is for Medical Recovery to purchase the issued ordinary shares of the Company for employee retention and incentive purposes. The Company considered it an effective and efficient way to motivate and incentivise its employees, which is beneficial to the sustainable development of the Group. In addition, the Board considered that the Group currently had surplus cash resources and the entering into of the Facility Agreement could put such resources to more efficient use and to generate better returns.

For details of the Facility Agreement, please refer to the announcement of the Company dated 17 July 2018.

Note 42 to the Consolidated Financial Statements

In respect of the Company's related party transactions disclosed in note 42 to the consolidated financial statements prepared in accordance with International Financial Reporting Standards, to the extent that they constitute connected transactions of the Company for the purpose of the Listing Rules that apply to it, the Company confirms that it has complied with the relevant requirements under the Listing Rules (if applicable).

Save as disclosed above, the related party transactions of the Company set out in note 42 to the consolidated financial statements prepared in accordance with International Financial Reporting Standards do not constitute connected transactions of the Company under the Listing Rules.

DIRECTORS' INTEREST IN COMPETING BUSINESS

Save as disclosed in this annual report, as at 31 December 2018, none of the Directors or their respective associates had engaged in or had any interest in any business which competes or is likely to compete, either directly or indirectly, with the businesses of the Group.

DONATIONS

The Group supports various medical charity projects. Please see Section 7.1 "Enhancing the Accessibility of Medicines and Medical Services" in "2018 Environmental, Social and Governance Report of 3SBio Inc."

SIGNIFICANT LEGAL PROCEEDINGS

For the year ended 31 December 2018, the Company was not engaged in any litigation or arbitration of material importance and no litigation or claim of material importance is known to the Directors to be pending or threatened against the Company.

ENVIRONMENTAL PROTECTION

The Group is subject to national and local environmental laws and regulations of the PRC. The Group has established detailed internal rules regarding environmental protection. The Group tests effluent water to ensure compliance with national emission standards. Solid waste is sorted for proper disposal. Hazardous waste is sent to qualified third parties for treatment. When a new construction project is proposed, the Group conducts comprehensive analysis and testing on the environmental issues involved in the manufacturing processes. The Group's production team and in-house legal department are primarily responsible for ensuring compliance with applicable environmental rules and regulations. All of the Group's properties, plants and equipment meet the standards required for compliance with applicable environmental rules and regulations, and the Group believes it has maintained a good relationship with the communities surrounding the Group's production facilities.

To the best knowledge of the Group, during the year ended 31 December 2018, there were no material breaches of national and local environmental laws and regulations of the PRC.

RELATIONSHIP WITH STAKEHOLDERS

The Group recognizes that various stakeholders including employees, medical experts, distributors, and other business associates are key to Group's success. The Group strives to achieve corporate sustainability through engaging, collaborating, and cultivating strong relationship with them.

The Group believes that it is vital to attract, recruit and retain quality employees. To maintain the quality, knowledge and skill levels of Group's workforce, the Group provide the employees with periodic training, including introductory training for new employees, technical training, professional and management training, and health and safety training. The Group believes that it maintains a good relationship with its employees and the Group did not experience any significant labour disputes or any difficulty in recruiting staff for its operations.

The Group conducts academic marketing activities to establish and maintain relationships with key opinion leaders in the national medical system, as well as the department heads and senior physicians in Group's target hospitals, particularly Grade III hospitals. The Group provides these experts with detailed information on its products and helps them make independent comparisons among competing products in the market. The Group also maintains long-term cooperative relationships with national academic associations, such as the Chinese Society of Nephrology (中華腎臟病學會) and the Chinese Society of Clinical Oncology (中國臨床腫瘤學會). The Group believes that its relationships with medical experts help to raise Group's profile, enhance awareness of Group's products in the medical community and among patients, and provide it with valuable clinical data to improve Group's products, all of which help the Group more effectively market and sell its products.

A significant amount of Group's sales is attributable to a limited number of distributors. The Group selects the distributors based on their qualifications, reputation, market coverage and sales experience. The Group generally has long term business relationship with its large distributors.

COMPLIANCE WITH LAWS AND REGULATIONS

The Group recognises the importance of compliance with laws and regulatory requirements. The Group has been allocating corporate and staff resources to ensure ongoing compliance with rules and regulations, including retaining external counsels and advisors. During the year ended 31 December 2018, the Group has complied, to the best of its knowledge, with all relevant rules and regulations that have a significant impact on it.

To the best knowledge of the Group, during the year ended 31 December 2018, there were no material breaches of the Group's internal rules or PRC laws and regulations relating to the promotion and distribution of the Group's pharmaceutical products by its employees, distributors, sub-distributors or third-party promoters.

PERMITTED INDEMINTY PROVISION

The Articles of Association provides that every Director of the Company shall be indemnified and secured harmless out of the assets and profits of the Company from and against all actions, costs, charges, losses, damages and expenses which they or any of them may incur as a result of any act or failure to act in the execution of their duty, or supposed duty, and in their respective offices or trusts provided that this indemnity shall not extend to any matter in respect of any fraud or dishonesty.

The Company has arranged appropriate insurance coverage in respect of potential legal actions against its Directors and senior management.

POST BALANCE SHEET EVENTS

The Group has no material post balance sheet events.

AUDIT COMMITTEE

The audit committee of the Company (the "**Audit Committee**") has, together with the management and external auditor of the Company (the "**Auditor**"), reviewed the accounting principles and policies adopted by the Group and the consolidated financial statements for the year ended 31 December 2018. The Audit Committee has also reviewed the effectiveness of the risk management and internal control systems of the Company and considers them to be effective and adequate.

CORPORATE GOVERNANCE

The Company is committed to maintaining high standards of corporate governance practices. Information on the corporate governance practices adopted by the Company is set out in the Corporate Governance Report on pages 55 to 70 of this annual report.

CLOSURE OF REGISTER OF SHAREHOLDERS

The AGM of the Company is scheduled to be held on 20 June 2019. For determining the entitlement to attend and vote at the AGM, the register of shareholders of the Company will be closed from 17 June 2019 to 20 June 2019, both days inclusive, during which period no transfer of shares of the Company will be registered. In order to be eligible to attend and vote at the AGM, all transfer of shares of the Company, accompanied by the relevant share certificates, must be lodged with the Company's Hong Kong share registrar, Computershare Hong Kong Investor Services Limited, at Shops 1712–1716, 17th Floor, Hopewell Centre, 183 Queen's Road East, Wanchai, Hong Kong, for registration not later than 4:30 p.m. on 14 June 2019.

TAX RELIEF

The Company is not aware of any relief from taxation available to the shareholders by reason of their holdings of the Shares. If the shareholders are unsure about the taxation implications of purchasing, holding, disposing of, dealing in or exercising of any rights in relation to the Shares, they are advised to consult their professional advisers.

SUFFICIENCY OF PUBLIC FLOAT

Based on information publicly available to the Company and to the best knowledge of the Directors, at least 25% of the Company's total issued shares, the prescribed minimum percentage of public float approved by the Stock Exchange and permitted under the Listing Rules, was held by the public at all times during the year ended 31 December 2018 and as of the date of this annual report.

AUDITOR

Ernst & Young was appointed as the Auditor for the year ended 31 December 2018.

Ernst & Young shall retire at the forthcoming AGM and, being eligible, will offer itself for re-appointment. A resolution for the re-appointment of Ernst & Young as Auditor will be proposed at the AGM.

On behalf of the Board

Dr. LOU Jing

Chairman

Shenyang, 20 March 2019

Corporate Governance Report

The Board is pleased to present the corporate governance report of the Company for the year ended 31 December 2018.

CORPORATE GOVERNANCE PRACTICES

The Group is committed to maintaining high standards of corporate governance to safeguard the interests of the shareholders and to enhance corporate value and accountability. The Company has adopted the Corporate Governance Code (the "**CG Code**") as set out in Appendix 14 of the Listing Rules as its own code of corporate governance.

Save as disclosed in this annual report, the Company has complied with all applicable code provisions under the CG Code throughout the year ended 31 December 2018. The Company will continue to review and monitor its corporate governance practices to ensure compliance with the CG Code.

THE BOARD

Responsibilities

The Board is responsible for the overall leadership of the Group, oversees the Group's strategic decisions and monitors business and performance. The Board has delegated the authority and responsibility for day-to-day management and operation of the Group to the senior management of the Group. To oversee particular aspects of the Company's affairs, the Board has established three Board committees including the Audit Committee, the remuneration committee (the "**Remuneration Committee**") and the nomination committee (the "**Nomination Committee**") (together, the "**Board Committees**"). The Board has delegated to the Board Committees responsibilities as set out in their respective terms of reference.

All Directors have carried out duties in good faith and in compliance with applicable laws and regulations, and have acted in the interests of the Company and the shareholders at all times.

The Company has arranged appropriate liability insurance in respect of legal action against the Directors. The insurance coverage will be reviewed on an annual basis.

Board Composition

As at the date of this annual report, the Board comprises four executive Directors, two non-executive Directors and three independent non-executive Directors as follows:

Executive Directors:
Dr. LOU Jing *(Chairman & Chief Executive Officer)*
Mr. TAN Bo
Ms. SU Dongmei
Mr. HUANG Bin

Non-executive Directors:
Mr. LIU Dong
Mr. WANG Steven Dasong

Independent Non-executive Directors:
Mr. PU Tianruo
Mr. David Ross PARKINSON
Mr. MA Jun

The biographies of the Directors are set out under the section headed "Directors and Senior Management" of this annual report.

During the year ended 31 December 2018 and up to the date of this annual report, the Board has at all times met the requirements under Rules 3.10(1) and 3.10(2) of the Listing Rules relating to the appointment of at least three independent non-executive Directors with at least one independent non-executive Director possessing appropriate professional qualifications or accounting or related financial management expertise.

The Company has also complied with Rule 3.10A of the Listing Rules relating to the appointment of independent non-executive Directors representing at least one-third of the Board.

The Company recognizes and embraces the benefits of having a diverse Board and sees increasing diversity at the Board level as an essential element in maintaining the Company's competitive advantage. Therefore, the Company has adopted a Board diversity policy to set out the approach to diversity on the Board. As provided in the Board diversity policy, the nomination committee will review annually the structure, size and composition of the Board and where appropriate, make recommendations on changes to the Board to complement the Company's corporate strategy. In relation to reviewing and assessing the Board composition, the nomination committee will consider a number of aspects, including but not limited to gender, age, cultural and educational background, professional qualifications, skills, knowledge, and industry and regional experience. The nomination committee will discuss, and where necessary, agree on the measurable objectives for achieving diversity on the Board and recommend them to the Board for adoption. The Company aims to maintain an appropriate balance of diversity perspectives of the Board that are relevant to the Company's business growth. The nomination committee will review the Board diversity policy as appropriate and recommend revisions, if any, to the Board for consideration and approval.

As each of the independent non-executive Directors has confirmed his independence pursuant to Rule 3.13 of the Listing Rules, the Company considers all of them to be independent.

None of the Directors has any personal relationship (including financial, business, family or other material or relevant relationship) with any other Director and chief executive.

All Directors, including independent non-executive Directors, have brought a wide spectrum of valuable business experience, knowledge and professionalism to the Board for its efficient and effective functioning. Independent non-executive Directors are invited to serve on the Audit Committee, the Remuneration Committee and the Nomination Committee.

As regards the CG Code provision requiring Directors to disclose the number and nature of offices held in public companies or organisations and other significant commitments as well as the identity of the public companies or organisations and the time involved to the issuer, Directors have agreed to disclose their commitments and any subsequent change to the Company in a timely manner.

Induction and Continuous Professional Development

Each newly appointed Director is provided with necessary induction and information to ensure that he/she has a proper understanding of the Company's operations and businesses as well as his/her responsibilities under relevant statues, laws, rules and regulations. The Directors are also provided with regular updates on the Company's performance, position and prospects to enable the Board as a whole and each Director to discharge their duties.

Directors are encouraged to participate in continuous professional development to develop and refresh their knowledge and skills. The company secretaries of the Company have from time to time updated and provided written training materials relating to the roles, functions and duties of a Director.

A summary of training received by the Directors throughout the year ended 31 December 2018 is as follows:

Name of Directors	Nature of Continuous Professional Development Programmes
Executive Directors	
Dr. LOU Jing	A and B
Mr. TAN Bo	B
Ms. SU Dongmei	B
Mr. HUANG Bin	B
Non-Executive Directors	
Mr. LIU Dong	B
Mr. WANG Steven Dasong	B
Independent Non-Executive Directors	
Mr. PU Tianruo	B
Mr. David Ross PARKINSON	B
Mr. MA Jun	B

Notes:

A: Attending seminars and/or meetings and/or forums and/or briefings

B: Reading materials relevant to corporate governance, director's duties and responsibilities, listing rules and other relevant ordinances

Chairman and Chief Executive Officer

Under code provision A.2.1 of the CG Code, the roles of chairman and chief executive officer should be separate and performed by different individuals.

Dr. LOU Jing, the chairman of the Company, was also appointed as the Chief Executive Officer of the Company. The Board believes that vesting both the roles of both chairman and chief executive officer in the same person has the benefit of ensuring consistent leadership within the Group and enabling more effective and efficient overall strategic planning for the Group. The Board considers that the balance of power and authority for the present arrangement will not be impaired and this structure will enable the Company to make and implement decisions promptly and effectively. The Board will from time to time review and consider splitting the roles of chairman of the Board and the chief executive officer of the Company at an appropriate time, taking into account the circumstances of the Group as a whole.

Appointment and Re-election of Directors

Each of the executive Directors has entered into a service contract with the Company commencing from 11 June 2018 for a term of three years (except, in Mr. HUANG Bin's case, until 31 December 2019), which may be renewed subject to both parties' agreement.

Each of Mr. LIU Dong and Mr. WANG Steven Dasong, the two non-executive Directors, has entered into an appointment letter with the Company for a term of three years commencing from 20 June 2018; and such term shall be automatically extended upon each expiry for successive tri-annual terms, subject to amendment and termination provisions, and subject to re-election and retirement as and when required by the Articles of Association.

Each of the independent non-executive Directors entered into an appointment letter with the Company for the term commencing from the date of his appointment letter (being 25 April 2016) until 28 June 2019, subject to re-election and retirement as and when required by the Articles of Association.

Saved as disclosed above, none of the Directors has a service contract which is not determinable by the Group within one year without payment of compensation (other than statutory compensation).

In accordance with the Articles of Association, all Directors are subject to retirement by rotation at least once every three years and any new Director appointed to fill a casual vacancy shall submit himself for re-election by the shareholders at the first general meeting of the Company after appointment and new Directors appointed as an addition to the Board shall submit himself for re-election by the shareholders at the next following AGM of the Company after appointment.

The procedures and process of appointment, re-election and removal of Directors are set out in the Articles of Association. The Nomination Committee is responsible for reviewing the Board composition and making recommendations to the Board on the appointment or re-election of Directors and succession planning for Directors.

Board Meetings

The Company adopts the practice of holding Board meetings regularly, at least four times a year, and at approximately quarterly intervals. Notices of not less than fourteen days have been given for all regular Board meetings to provide all Directors with an opportunity to attend and include matters in the agenda for a regular meeting. In 2018, four regular board meetings were held.

For other Board and Board Committee meetings, reasonable notices have been generally given. The agenda and accompanying board papers have been dispatched to the Directors or Board Committee members at least three days before the meetings to ensure that they have sufficient time to review the papers and are adequately prepared for the meetings. When Directors or Board Committee members are unable to attend a meeting, they will be advised of the matters to be discussed and given an opportunity to make their views known to the Chairman prior to the meeting. Minutes of meetings are kept by the Company with copies circulated to all Directors for information and records.

Minutes of the Board meetings and Board Committee meetings are recorded in sufficient detail about the matters considered by the Board and the Board Committees and the decisions reached, including any concerns raised by the Directors. Draft minutes of each Board meeting and Board Committee meeting are sent to the Directors for comments within a reasonable time after the date on which the meeting is held. Minutes of the Board meetings are open for inspection by Directors.

During the year ended 31 December 2018, four board meetings and one annual general meeting were held and the attendance of each Director at these meetings is set out in the table below:

Directors	Attended/Eligible to attend the Board meetings	Attended/Eligible to attend the annual general meeting
Executive Directors		
Dr. LOU Jing	4/4	1/1
Mr. TAN Bo	4/4	0/1
Ms. SU Dongmei	4/4	1/1
Mr. HUANG Bin	4/4	1/1
Non-Executive Directors		
Mr. LIU Dong	4/4	0/1
Mr. WANG Steven Dasong	4/4	0/1
Independent Non-Executive Directors		
Mr. PU Tianruo	4/4	1/1
Mr. David Ross PARKINSON	4/4	1/1
Mr. MA Jun	4/4	1/1

Model Code for Securities Transactions

The Company has adopted the Model Code as set out in Appendix 10 of the Listing Rules as its own code of conduct regarding Directors' securities transactions. Having made specific enquiry with the Directors, all Directors confirmed that they have complied with the required standard as set out in the Model Code during the year ended 31 December 2018.

Code provision A.6.4 of the CG Code stipulates that the Company must establish guidelines no less exacting than the Model Code for relevant employees in respect of their dealings in the Company's securities. To comply with the CG Code, the Company has adopted a set of guidelines no less exacting than the Model Code for relevant employees in respect of their dealings in the Company's securities prior to the Listing Date.

Delegation by the Board

The Board reserves for its decision all major matters of the Company, including: approval and monitoring of all policy matters, overall strategies and budgets, internal control and risk management systems, material transactions (in particular those that may involve conflict of interests), financial information, appointment of Directors and other significant financial and operational matters. Directors could have recourse to seek independent professional advice in performing their duties at the Company's expense and are encouraged to access and to consult with the Company's senior management independently.

The daily management, administration and operation of the Group are delegated to the senior management. The delegated functions and responsibilities are periodically reviewed by the Board. Approval has to be obtained from the Board prior to any significant transactions entered into by the management.

Corporate Governance Function

The Board recognizes that corporate governance should be the collective responsibility of the Directors which includes:

(a) developing and reviewing the Company's policies and practices on corporate governance;

(b) reviewing and monitoring the training and continuous professional development of Directors and senior management of the Company;

(c) reviewing and monitoring the Company's policies and practices on compliance with legal and regulatory requirements;

(d) developing, reviewing and monitoring the code of conduct and compliance manual (if any) applicable to employees and directors; and

(e) reviewing the Company's compliance with the CG Code and disclosure in the Corporate Governance Report.

Long-Term Corporate Performance and Strategy

The Company makes long-term financial performance as a corporate governance objective. The mission of the Company is to provide better care for patients through innovation and excellence in its core and related therapeutic areas. The Company aims to strengthen its leadership position in the PRC biotechnology industry and to expand its international business in the next few years.

BOARD COMMITTEES

Audit Committee

The Audit Committee comprises three members, including a non-executive director namely Mr. WANG Steven Dasong, and two independent non-executive Directors namely Mr. PU Tianruo (Chairman) and Mr. MA Jun.

The principal duties of the Audit Committee include the following:

1. reviewing the relationship with the Auditor by reference to the work performed by the Auditor, their fees and terms of engagement, and making recommendations to the Board on the appointment, re-appointment and removal of the Auditors;

2. reviewing the financial statements and reports and considering any significant or unusual items raised by the Company's staff responsible for the accounting and financial reporting function or the Auditor before submission to the Board; and

3. reviewing the adequacy and effectiveness of the Company's financial reporting system, internal control and risk management systems and associated procedures, including the adequacy of the resources, staff qualifications and experience, training programmes and budget of the Company's accounting and financial reporting function.

The written terms of reference of the Audit Committee are available on the websites of the Stock Exchange and the Company.

During the year ended 31 December 2018, three meetings of the Audit Committee were held to discuss and consider the following matters:

- final results of the Company and its subsidiaries for the fiscal year as well as the audit report prepared by the Auditor relating to accounting issues and major findings in the course of audit;

- interim results of the Company and its subsidiaries for the six-month period ended 30 June 2018; and

- the financial reporting system, compliance procedures, internal control (including the adequacy of resources, staff qualifications and experience, training programmes and budget of the Company's accounting and financial reporting function) and risk management systems and processes, and the re-appointment of the Auditor, with respect to which the Board had not deviated from any recommendation given by the Audit Committee on the selection, appointment, resignation or dismissal of the Auditor.

Attendance of each Audit Committee member is set out in the table below:

Directors	Attended/Eligible to attend
Mr. PU Tianruo (Chairman)	3/3
Mr. WANG Steven Dasong	3/3
Mr. MA Jun	3/3

Nomination Committee

The Nomination Committee currently comprises three members, including an executive Director namely Dr. LOU Jing (chairman) and two independent non-executive Directors namely Mr. PU Tianruo and Mr. MA Jun.

The principal duties of the Nomination Committee include the following:

1. reviewing the structure, size and composition (including the skills, knowledge and experience) of the Board at least annually and making recommendations on any proposed changes to the Board to complement the Company's corporate strategy;

2. developing the criteria for identifying and assessing the qualifications of and evaluating candidates for directorship;

3. identifying individuals suitably qualified to become Board members and selecting or making recommendations to the Board on the selection of individuals nominated for directorships;

4. assessing the independence of independent non-executive Directors;

5. making recommendations to the Board on the appointment or re-appointment of Directors and the succession planning for Directors, in particular the chairman and the chief executive officer; and

6. developing a policy concerning diversity of Board members, and disclosing the policy or a summary of the policy in the corporate governance report.

The written terms of reference of the Nomination Committee are available on the websites of the Stock Exchange and the Company.

The nomination policy of the Company sets as one of its objectives to ensure the Board has a balance of skills, experience and diversity of perspectives appropriate to the requirements of the Company's business. For a summary of the Company's Board diversity policy, please refer to the relevant paragraph in the "Board Composition" section of this Corporate Governance Report.

Pursuant to these policies, in assessing and selecting candidates, the Board and the Nomination Committee should consider various factors including integrity, age, gender, skills, knowledge, experience, expertise, professional and educational qualifications, background, the board's composition and diversity, availability of service to the Company, expected contribution, independence, conflicts of interest, and any other relevant factors.

The Nomination Committee identifies or selects candidates pursuant to the criteria as set out above. The Nomination Committee then makes recommendation to the Board including the terms and conditions of the appointment. The Board deliberates and decides on the appointment based upon the recommendation of the Nomination Committee. All appointments of director should be confirmed by a service contract or letter of appointment (as the case may be) setting out the key terms and conditions. As applicable, the Board shall make recommendation to shareholders in respect of the proposed election or re-election of director at a general meeting.

During the year ended 31 December 2018, one meeting of the Nomination Committee was held. All three members of the Nomination Committee attended the meeting.

Remuneration Committee

The Remuneration Committee comprises three members, including two independent non-executive Directors namely Mr. MA Jun (chairman) and Mr. PU Tianruo and a non-executive Director namely Mr. LIU Dong.

The principal duties of the Remuneration Committee include the following:

1. making recommendations to the Board on the Company's policy and structure for the remuneration of the Directors and senior management and on the establishment of a formal and transparent procedure for developing remuneration policies;

2. reviewing and approving the management's remuneration proposals with reference to the corporate goals and objectives determined by the Board;

3. making recommendations to the Board on the remuneration packages of executive directors and senior management;

4. making recommendations to the Board on the remuneration of non-executive Directors;

5. considering factors such as the level of remuneration paid by comparable companies, the time commitment and responsibilities of directors and senior management, and the employment conditions of the Company and its subsidiaries and consolidated affiliated entities;

6. ensuring that no Director or any of his/her associates is involved in deciding his or her own remuneration; and

7. reviewing and approving compensation payments and arrangements to directors and senior management for loss or termination of their office or appointment, or dismissal or removal for misconduct and assessing whether the proposed payments or arrangements are fair, reasonable, consistent with the relevant contractual terms, or otherwise appropriate.

The written terms of reference of the Remuneration Committee are available on the websites of the Stock Exchange and the Company.

During the year ended 31 December 2018, one meeting of the Remuneration Committee was held. All three members of the Committee attended the meeting.

Remuneration of Directors and Senior Management

The Company has established a formal and transparent procedure for formulating policies on remuneration of Directors and senior management of the Group. Details of the remuneration by band of the members of the Board and senior management of the Company, whose biographies are set out on pages 28 to 35 of this annual report, for the year ended 31 December 2018 are set out below:

Remuneration band	Number of individuals
Nil to RMB1,000,000	5
RMB1,000,001 to RMB1,500,000	2
RMB1,500,001 to RMB2,000,000	2
RMB2,000,001 to RMB2,500,000	2
RMB3,500,001 to RMB4,000,000	1
RMB4,000,001 to RMB4,500,000	1
Above RMB5,000,000	3

DIRECTORS' RESPONSIBILITIES FOR FINANCIAL REPORTING IN RESPECT OF FINANCIAL STATEMENTS

The Directors acknowledge their responsibility for preparing the financial statements for the year ended 31 December 2018 which give a true and fair view of the affairs of the Company and the Group and of the Group's results and cash flows.

The management has provided to the Board such explanation and information as are necessary to enable the Board to carry out an informed assessment of the Company's financial statements, which are put to the Board for approval. The Company provides all members of the Board with quarterly updates on Company's performance, positions and prospects.

The Directors were not aware of any material uncertainties relating to events or conditions which may cast significant doubt upon the Group's ability to continue as a going concern.

The statement by the Auditor regarding their reporting responsibilities on the consolidated financial statements of the Company is set out in the Independent Auditor's Report on pages 76 to 78 of this annual report.

RISK MANAGEMENT AND INTERNAL CONTROL

The Board acknowledges that it is responsible for the Company's risk management and internal control systems and reviewing their effectiveness. The risk management and internal control systems are designed to manage rather than eliminate the risk of failure to achieve business objectives, and can only provide reasonable and not absolute assurance against material misstatement or loss.

The Group's risk management and internal control systems provide a comprehensive and organized structure with clearly defined scopes of responsibilities, authorities and procedures. The Group has a designated risk management and internal control team which is responsible for identifying and monitoring the Group's risks and internal control issues and reports directly to the Board of any findings and follow-up actions. Each department of the Group is also required to adhere strictly to the Group's internal control procedures and report to the risk management and internal control team of any risks or internal control issues.

The Group would conduct self-assessment each year to confirm that all departments and the Group have properly complied with the risk management and internal control policy.

The internal audit department is responsible for independent review of the adequacy and effectiveness of risk management and internal control systems. During the year under review, the internal audit department reviewed important issues such as the relevant strategic management, major operational and financial reporting procedure adequacy of resources, staff qualifications and experiences, regulatory compliance, and provided its findings and recommendations to the Audit Committee for improvement.

Any internal control defects identified by the internal audit department will be communicated to the department in question with advice for correction and remediation. Before the end of year, the status will be reviewed. The compliance department will also assist in the correction and remediation. Any unresolved control defects at the end of the year will be informed to the management. For the year ended 31 December 2018, no material internal control defect was detected.

The Audit Committee of the Board reviews the Company's material controls, including financial, operational and compliance controls, and risk management and internal control systems at least annually. During the year ended 31 December 2018, the Audit Committee conducted a review of the effectiveness of the risk management and internal control systems of the Group, including the above-mentioned material controls. The review has covered various aspects of the Group's risk management and internal control systems. In the review, the Audit Committee reviewed the report from the management and the findings and recommendations from the internal audit department. The review results were reported to the Board. The Board is satisfied that such systems are effective and adequate.

The Group has also adopted an information disclosure policy which has set out comprehensive guidelines in respect of handling and dissemination of inside information. The Board is entrusted with the responsibility for monitoring and implementing the procedural requirements in the information disclosure policy. Release of inside information shall be led by the Board. Unless duly authorized, all staff members of the Company shall not disseminate inside information relating to the Group to any external parties and shall not respond to media report or market speculation which may materially affect the trading price or volume of the Shares.

AUDITOR'S REMUNERATION

Ernst & Young was appointed as the Auditor for the annual audit and other audit services for the year ended 31 December 2018.

The remuneration for the services provided by Ernst & Young to the Group for the year ended 31 December 2018 was as follows:

Type of Services	Amount (RMB'000)
Audit services	5,974
Review services	1,802
Other non-audit services	37
Total	7,813

JOINT COMPANY SECRETARIES

Ms. LIU Yanli ("**Ms. LIU**"), the joint company secretary of the Company, is responsible for advising the Board on corporate governance matters and ensuring that the Board policies and procedures, as well as the applicable laws, rules and regulations are followed.

In order to uphold good corporate governance and ensure compliance with the Listing Rules and applicable Hong Kong laws, the Company also engaged Ms. LAI Siu Kuen ("**Ms. LAI**", resigned on 20 August 2018 due to work rearrangement), an associate director of TMF Hong Kong Limited ("**TMF HK**", a company secretarial service provider), and thereafter has engaged Ms. LEUNG Suet Wing ("**Ms. LEUNG**", appointed on 20 August 2018), an assistant manager of TMF HK, as the other joint company secretary to assist Ms. LIU to discharge her duties as company secretary of the Company. The primary corporate contact person at the Company is Ms. LIU.

For the year ended 31 December 2018, each of Ms. LIU and Ms. LEUNG has undertaken not less than 15 hours of relevant professional training respectively in compliance with Rule 3.29 of the Listing Rules.

COMMUNICATION WITH SHAREHOLDERS AND INVESTOR RELATIONS

The Company considers that effective communication with the shareholders is essential for enhancing investor relations and understanding of the Group's business, performance and strategies. The Company also recognizes the importance of timely and non-selective disclosure of information, which will enable shareholders and investors to make the informed investment decisions.

The AGM of the Company provides opportunity for the shareholders to communicate directly with the Directors. The chairman of the Company and the chairmen of the Board Committees of the Company will attend the AGM to answer shareholders' questions. The Auditor will also attend the AGM to answer questions about the conduct of the audit, the preparation and content of the Auditors' report, the accounting policies and auditor independence.

To promote effective communication, the Company adopts a shareholders' communication policy which aims at establishing a two-way relationship and communication between the Company and the shareholders and maintaining such relationship and communication on the websites of the Stock Exchange at www.hkexnews.hk and of the Company at www.3sbio.com, where up-to-date information on the Company's business operations and developments, financial information, corporate governance practices and other information is available for public access.

DIVIDEND POLICY

The Board shall consider various factors before declaring or recommending dividends, including the Company's actual and expected financial performance; retained earnings and distributable reserves of the Company and each of the members of the Group; the Group's working capital requirements, capital expenditure requirements and future expansion plans; the Group's liquidity position; general economic conditions, business cycle of the Group's business and other internal or external factors that may have an impact on the business or financial performance and position of the Company; and other factors that the Board deems relevant.

The payment of dividend is also subject to compliance with applicable laws and regulations including the laws of Cayman Islands and the Company's Memorandum and Articles of Association.

As a holding company, the Company is dependent upon the receipt of cash distributions from its PRC subsidiaries to fund any dividend payments. The ability of these subsidiaries to make dividend and other payments to the Company is restricted by their constitutional documents and to the laws of and regulations of the PRC.

SHAREHOLDERS' RIGHTS

To safeguard shareholders' interests and rights, a separate resolution will be proposed for each issue at general meetings, including the election of individual Directors.

All resolutions put forward at general meetings will be voted by poll pursuant to the Listing Rules and poll results will be posted on the websites of the Company and the Stock Exchange in a timely manner after each general meeting.

Convening of extraordinary general meeting and putting forward proposals

Shareholders do not generally have a right to propose new resolutions at general meetings. Shareholders who wish to propose a resolution may request the Company to convene an extraordinary general meeting following the procedures as set out below.

Any one or more members holding as at the date of deposit of the requisition not less than one-tenth of the paid-up capital of the Company carrying the right of voting at general meetings of the Company shall at all times have the right, by written requisition to the Board or the secretary of the Company, to require an extraordinary general meeting of the Company to be called by the Board for the transaction of any business specified in such requisition; and such meeting shall be held within two months after the deposit of such requisition. If within 21 days of such deposit, the Board fails to proceed to convene such meeting, the requisitionist(s) himself (themselves) may do so in the same manner, and all reasonable expenses incurred by the requisitionist(s) as a result of the failure of the Board shall be reimbursed to the requisitionist(s) by the Company.

As regards proposing a person for election as a Director, the procedures are available on the website of the Company.

Enquiries to the Board

Shareholders who intend to put forward their enquiries about the Company to the Board could send their enquiries to the principal place of business in Hong Kong of the Company at 31/F, Tower Two, Times Square, 1 Matheson Street, Causeway Bay, Hong Kong (email address: ir@3sbio.com).

CHANGE IN CONSTITUTIONAL DOCUMENTS

There was no change in the Memorandum and Articles of Association of the Company for the year ended 31 December 2018.

Independent Auditor's Report

Ernst & Young
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Central, Hong Kong

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To the shareholders of 3SBio Inc.
(Incorporated in the Cayman Islands as an exempted company with limited liability)

Opinion

We have audited the consolidated financial statements of 3SBio Inc. (the "**Company**") and its subsidiaries (the "**Group**") set out on pages 79 to 210, which comprise the consolidated statement of financial position as at 31 December 2018, and the consolidated statement of profit or loss, the consolidated statement of comprehensive income, the consolidated statement of changes in equity and the consolidated statement of cash flows for the year then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the consolidated financial statements give a true and fair view of the consolidated financial position of the Group as at 31 December 2018, and of its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with International Financial Reporting Standards ("**IFRSs**") issued by the International Accounting Standards Board ("**IASB**") and have been properly prepared in compliance with the Hong Kong Companies Ordinance.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing ("**ISAs**") issued by the International Auditing and Assurance Standards Board ("**IAASB**"). Our responsibilities under those standards are further described in the *Auditor's responsibilities for the audit of the consolidated financial statements* section of our report. We are independent of the Group in accordance with the Hong Kong Institute of Certified Public Accountants' *Code of Ethics for Professional Accountants* (the "**Code**"), and we have fulfilled our other ethical responsibilities in accordance with the Code. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

To the shareholders of 3SBio Inc.
(Incorporated in the Cayman Islands as an exempted company with limited liability)

Key audit matters

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters. For each matter below, our description of how our audit addressed the matter is provided in that context.

We have fulfilled the responsibilities described in the *Auditor's responsibilities for the audit of the consolidated financial statements* section of our report, including in relation to these matters. Accordingly, our audit included the performance of procedures designed to respond to our assessment of the risks of material misstatement of the consolidated financial statements. The results of our audit procedures, including the procedures performed to address the matters below, provide the basis for our audit opinion on the accompanying consolidated financial statements.

To the shareholders of 3SBio Inc.

(Incorporated in the Cayman Islands as an exempted company with limited liability)

Key audit matters (continued)

Key audit matter	How our audit addressed the key audit matter
Impairment of other intangible assets with indefinite life	
As at 31 December 2018, other intangible assets with indefinite life amounted to RMB138,481,000. In accordance with IAS 36 *Impairment of Assets*, intangible assets with indefinite useful lives are tested for impairment annually either individually or at the cash-generating unit level. The impairment reviews performed by the Group contained a number of significant judgements and estimates including growth rate, royalty rate and discount rates. Changes in these assumptions might lead to a change in the carrying value of intangible assets. The Group's disclosures on other intangible assets with indefinite life are included in note 17 to the financial statements.	Our audit procedures included, among others, a review of the models and the assumptions applied by management in assessing the forecasted revenue growth and profit margins. We evaluated management's sensitivity analyses to ascertain the impact of reasonably possible changes to key assumptions on the available headroom. We also reviewed the Group's disclosures of the assumptions applied in assessing the impairment of those intangible assets. We involved internal valuation experts to assess key assumptions in valuation models including growth rate, royalty rate and discount rates.

To the shareholders of 3SBio Inc.

(Incorporated in the Cayman Islands as an exempted company with limited liability)

Key audit matters (continued)

Key audit matter	How our audit addressed the key audit matter
Impairment of goodwill	
As at 31 December 2018, the carrying amount of goodwill was RMB4,089,064,000. In accordance with IAS 36 *Impairment of Assets*, the Group is required to test goodwill for impairment annually. Management performs the impairment assessment using a value in use calculation based on the discounted cash flow method. This assessment is complex and judgemental and is based on assumptions, such as forecasted revenue growth, profit margins and the discount rates, which are affected by expected future market or economic conditions, particularly in Mainland China. The Group's disclosures on goodwill are included in note 16 to the financial statements.	Our audit procedures included, among others, a review of the assumptions with actual results of prior periods applied by management in assessing the forecasted revenue growth, profit margins and discount rates. We evaluated management's identification of CGU and impairment model used by the Group. We also reviewed the Group's disclosures of those assumptions to which the outcome of the impairment test is most sensitive and which have the most significant effect on the determination of the recoverable amount of goodwill. We involved internal valuation experts in benchmarking key assumptions in valuation models including expected perpetual rates and discount rates.

To the shareholders of 3SBio Inc.
(Incorporated in the Cayman Islands as an exempted company with limited liability)

Other information included in the Annual Report

The directors of the Company are responsible for the other information. The other information comprises the information included in the Annual Report, other than the consolidated financial statements and our auditor's report thereon.

Our opinion on the consolidated financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the consolidated financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of the directors for the consolidated financial statements

The directors of the Company are responsible for the preparation of the consolidated financial statements that give a true and fair view in accordance with IFRSs issued by the IASB and the Hong Kong Companies Ordinance, and for such internal control as the directors determine is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, the directors of the Company are responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors of the Company either intend to liquidate the Group or to cease operations or have no realistic alternative but to do so.

The directors of the Company are assisted by the Audit Committee in discharging their responsibilities for overseeing the Group's financial reporting process.

To the shareholders of 3SBio Inc.

(Incorporated in the Cayman Islands as an exempted company with limited liability)

Auditor's responsibilities for the audit of the consolidated financial statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Our report is made solely to you, as a body, and for no other purpose. We do not assume responsibility towards or accept liability to any other person for the contents of this report.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with ISAs, we exercise professional judgement and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.

To the shareholders of 3SBio Inc.

(Incorporated in the Cayman Islands as an exempted company with limited liability)

Auditor's responsibilities for the audit of the consolidated financial statements (continued)

- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the directors.

- Conclude on the appropriateness of the directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the Group audit. We remain solely responsible for our audit opinion.

To the shareholders of 3SBio Inc.
(Incorporated in the Cayman Islands as an exempted company with limited liability)

Auditor's responsibilities for the audit of the consolidated financial statements (continued)

We communicate with the Audit Committee regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide the Audit Committee with a statement that we have complied with relevant ethical requirements regarding independence and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with the Audit Committee, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

The engagement partner on the audit resulting in this independent auditor's report is Tong Ka Yan, Augustine.

Ernst & Young
Certified Public Accountants
Hong Kong
20 March 2019

Consolidated Statement of Profit or Loss

Year ended 31 December 2018

	Notes	2018 RMB'000	2017 RMB'000
REVENUE	5	**4,583,869**	3,734,334
Cost of sales	6	**(877,255)**	(676,235)
Gross profit		**3,706,614**	3,058,099
Other income and gains	5	**429,810**	195,793
Selling and distribution expenses		**(1,691,167)**	(1,332,703)
Administrative expenses		**(316,751)**	(315,105)
Other expenses	6	**(486,368)**	(348,275)
Finance costs	7	**(138,382)**	(141,350)
Share of losses of associates	19	**(8,245)**	(14,442)
PROFIT BEFORE TAX		**1,495,511**	1,102,017
Income tax expense	11	**(218,265)**	(177,613)
PROFIT FOR THE YEAR		**1,277,246**	924,404
Attributable to:			
Owners of the parent		**1,277,167**	935,389
Non-controlling interests		**79**	(10,985)
		1,277,246	924,404
EARNINGS PER SHARE ATTRIBUTABLE TO ORDINARY EQUITY HOLDERS OF THE PARENT			
— Basic (RMB)	13	**0.50**	0.37
— Diluted (RMB)	13	**0.49**	0.36

Consolidated Statement of Comprehensive Income

Year ended 31 December 2018

	2018 RMB'000	2017 RMB'000
PROFIT FOR THE YEAR	**1,277,246**	924,404
OTHER COMPREHENSIVE INCOME/(LOSS)		
Other comprehensive income/(loss) that may be reclassified to profit or loss in subsequent periods:		
Available-for-sale investments:		
Changes in fair value, net of tax	**—**	(4,450)
Exchange differences:		
Exchange differences on translation of foreign operations	**93,539**	(124,896)
Net other comprehensive income/(loss) that may be reclassified to profit or loss in subsequent periods	**93,539**	(129,346)
Other comprehensive income that will not be reclassified to profit or loss in subsequent periods:		
Equity investments designated at fair value through other comprehensive income:		
Changes in fair value	**16,740**	—
Income tax effect	**(6,394)**	—
Net other comprehensive income/(loss) that will not be reclassified to profit or loss in subsequent periods	**10,346**	—
OTHER COMPREHENSIVE INCOME/(LOSS) FOR THE YEAR, NET OF TAX	**103,885**	(129,346)
TOTAL COMPREHENSIVE INCOME FOR THE YEAR	**1,381,131**	795,058
Attributable to:		
Owners of the parent	**1,381,052**	806,043
Non-controlling interests	**79**	(10,985)
	1,381,131	795,058

Consolidated Statement of Financial Position

31 December 2018

	Notes	2018 RMB'000	2017 RMB'000
NON-CURRENT ASSETS			
Property, plant and equipment	14	**1,791,961**	1,759,669
Prepaid land lease payments	15	**326,457**	306,557
Goodwill	16	**4,089,064**	3,923,598
Other intangible assets	17	**2,298,735**	2,253,516
Investment in a joint venture	18	**2,500**	—
Investments in associates	19	**385,850**	33,510
Available-for-sale investments	20	**—**	48,333
Equity investments designated at fair value through other comprehensive income	20	**313,246**	—
Long-term receivables	21	**28,758**	35,372
Prepayments, other receivables and other assets	25	**81,149**	39,837
Deferred tax assets	22	**84,402**	76,363
Total non-current assets		**9,402,122**	8,476,755
CURRENT ASSETS			
Inventories	23	**384,609**	376,529
Trade and notes receivables	24	**1,483,885**	1,324,084
Prepayments, other receivables and other assets	25	**693,997**	459,251
Available-for-sale investments	20	**—**	704,564
Equity investments designated at fair value through other comprehensive income	20	**32,872**	—
Financial assets at fair value through profit or loss	26	**35,260**	—
Derivative financial instrument		**16**	1,322
Cash and cash equivalents	27	**1,792,605**	2,398,621
Pledged deposits	27	**14,289**	11,845
Total current assets		**4,437,533**	5,276,216
CURRENT LIABILITIES			
Trade and bills payables	28	**112,915**	274,568
Other payables and accruals	29	**845,725**	695,898
Deferred income	30	**35,887**	26,671
Interest-bearing bank and other borrowings	31	**570,328**	1,087,466
Tax payable		**90,686**	111,206
Total current liabilities		**1,655,541**	2,195,809
NET CURRENT ASSETS		**2,781,992**	3,080,407
TOTAL ASSETS LESS CURRENT LIABILITIES		**12,184,114**	11,557,162

Consolidated Statement of Financial Position (continued)

31 December 2018

	Notes	2018 RMB'000	2017 RMB'000
TOTAL ASSETS LESS CURRENT LIABILITIES		**12,184,114**	11,557,162
NON-CURRENT LIABILITIES			
Interest-bearing bank and other borrowings	31	**425,022**	1,046,791
Convertible bonds	32	**2,299,321**	2,271,874
Deferred income	30	**275,337**	310,410
Deferred tax liabilities	22	**270,761**	280,268
Other non-current liabilities		**6,303**	18,173
Total non-current liabilities		**3,276,744**	3,927,516
Net assets		**8,907,370**	7,629,646
EQUITY			
Equity attributable to owners of the parent			
Share capital	34	**156**	156
Treasury shares	34	**(40,586)**	—
Share premium	34	**4,376,056**	4,372,460
Other reserves		**4,278,807**	3,024,172
Controlling interests		**8,614,433**	7,396,788
Non-controlling interests		**292,937**	232,858
Total equity		**8,907,370**	7,629,646

Jing Lou
Director

Bo Tan
Director

Consolidated Statement of Changes in Equity

Year ended 31 December 2018

	Attributable to owners of the parent										
	Share capital RMB'000 (note 34)	Share premium RMB'000 (note 34)	Contributed surplus* RMB'000 (note 35)	Equity component of convertible bonds* RMB'000 (note 32)	Statutory surplus reserves* RMB'000 (note 36)	Retained earnings* RMB'000	Available-for-sale investment revaluation reserve* RMB'000	Exchange fluctuation reserve* RMB'000	Total RMB'000	Non-controlling interests RMB'000	Total equity RMB'000
At 1 January 2017	155	4,367,719	179,417	–	206,847	1,609,483	57	158,821	6,522,499	243,843	6,766,342
Profit for the year	–	–	–	–	–	935,389	–	–	935,389	(10,985)	924,404
Other comprehensive income for the year:											
Change in fair value of available-for-sale investments, net of tax	–	–	–	–	–	–	(4,450)	–	(4,450)	–	(4,450)
Exchange differences related to foreign operations	–	–	–	–	–	–	–	(124,896)	(124,896)	–	(124,896)
Total comprehensive income for the year	–	–	–	–	–	935,389	(4,450)	(124,896)	806,043	(10,985)	795,058
Transfer to statutory reserves	–	–	–	–	100,947	(100,947)	–	–	–	–	–
Issue of convertible bonds (note 32)	–	–	–	47,133	–	–	–	–	47,133	–	47,133
Equity-settled share option arrangements (note 35)	–	–	21,112	–	–	–	–	–	21,112	–	21,112
Shares issued upon exercise of warrants	1	4,741	(4,741)	–	–	–	–	–	1	–	1
At 31 December 2017	156	4,372,460	195,788	47,133	307,794	2,443,925	(4,393)	33,925	7,396,788	232,858	7,629,646

	Attributable to owners of the parent											
	Share capital RMB'000 (note 34)	**Treasury shares RMB'000 (note 34)**	**Share premium RMB'000 (note 34)**	**Contributed surplus* RMB'000 (note 35)**	**Equity component of convertible bonds* RMB'000 (note 32)**	**Statutory surplus reserves* RMB'000 (note 36)**	**Retained earnings* RMB'000**	**Available-for-sale investment revaluation /Fair value reserve* RMB'000**	**Exchange fluctuation reserve* RMB'000**	**Total RMB'000**	**Non-controlling interests RMB'000**	**Total equity RMB'000**
At 31 December 2017	156	–	4,372,460	195,788	47,133	307,794	2,443,925	(4,393)	33,925	7,396,788	232,858	7,629,646
Effect of adoption of IFRS 9	–	–	–	–	–	–	–	–	–	–	–	–
Effect of adoption of IFRS 15	–	–	–	–	–	–	–	–	–	–	–	–
At 1 January 2018	**156**	**–**	**4,372,460**	**195,788**	**47,133**	**307,794**	**2,443,925**	**(4,393)**	**33,925**	**7,396,788**	**232,858**	**7,629,646**
Profit for the year	**–**	**–**	**–**	**–**	**–**	**–**	**1,277,167**	**–**	**–**	**1,277,167**	**79**	**1,277,246**
Other comprehensive income for the year:												
Change in fair value of equity investments at fair value through other comprehensive income, net of tax	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**10,346**	**–**	**10,346**	**–**	**10,346**
Exchange differences related to foreign operations	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**93,539**	**93,539**	**–**	**93,539**
Total comprehensive income for the year	**–**	**–**	**–**	**–**	**–**	**–**	**1,277,167**	**10,346**	**93,539**	**1,381,052**	**79**	**1,381,131**
Transfer to statutory reserves	**–**	**–**	**–**	**–**	**–**	**129,939**	**(129,939)**	**–**	**–**	**–**	**–**	**–**
Shares repurchased	**–**	**(40,586)**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**(40,586)**	**–**	**(40,586)**
Equity-settled share option arrangements (note 35)	**–**	**–**	**–**	**17,487**	**–**	**–**	**–**	**–**	**–**	**17,487**	**–**	**17,487**
Capital injection from a non-controlling shareholder	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**60,000**	**60,000**
Dividends paid (note 12)	**–**	**–**	**–**	**–**	**–**	**–**	**(140,308)**	**–**	**–**	**(140,308)**	**–**	**(140,308)**
Transfer to retained profits	**–**	**–**	**–**	**–**	**–**	**–**	**5,796**	**(5,796)**	**–**	**–**	**–**	**–**
Shares issued upon exercise of warrants	**–**	**–**	**3,596**	**(3,596)**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**
At 31 December 2018	**156**	**(40,586)**	**4,376,056**	**209,679**	**47,133**	**437,733**	**3,456,641**	**157**	**127,464**	**8,614,433**	**292,937**	**8,907,370**

* These reserve accounts comprised the consolidated other reserves of approximately RMB4,278,807,000 (2017: RMB3,024,172,000) in the consolidated statement of financial position.

Consolidated Statement of Cash Flows

Year ended 31 December 2018

	Notes	2018 RMB'000	2017 RMB'000
CASH FLOWS FROM OPERATING ACTIVITIES			
Profit before tax		**1,495,511**	1,102,017
Adjustments for:			
Share of losses of associates	19	**8,245**	14,442
Fair value loss on a derivative financial instrument	6	**1,323**	1,177
Interest income	5	**(64,771)**	(21,769)
Interest on bank borrowings	7	**65,609**	109,959
Interest on convertible bonds	7	**72,773**	31,391
Foreign exchange differences	5,6	**(83,786)**	22,166
Charge of share-based compensation costs	35	**17,487**	21,112
Depreciation	14	**165,248**	128,453
Amortisation of other intangible assets	6	**148,016**	115,242
Recognition of prepaid land lease payments	15	**8,480**	7,901
Amortisation of long-term deferred expenditures	6	**1,958**	3,622
Recognition of deferred income	30	**(43,291)**	(30,395)
Provision for impairment of trade receivables	6,24	**36,622**	15,386
Provision/(reversal of provision) for impairment of other receivables	6,25	**23,299**	(485)
Provision for impairment of long term receivables	6,21	**8,095**	—
Reversal of provision for impairment of inventories	23	**(507)**	(382)
Loss on disposal of items of property, plant and equipment	6	**10,054**	14,257
Gain on reclassification from investment in an associate to equity investment designated at fair value through other comprehensive income	5	**(201,324)**	—
Gain on disposal of an investment in an associate	5	**—**	(103,382)
Loss on disposal of an investment in a joint venture	6	**—**	134
Payment of service fee in relation to non-operation activities		**(12,346)**	19,513
		1,656,695	1,450,359
Increase in inventories		**(35,724)**	(108,344)
Decrease in pledged deposits		**15**	3,235
Increase in trade and notes receivables		**(264,464)**	(553,122)
(Decrease)/increase in prepayments, other receivables and other assets		**2,561**	(17,124)
(Decrease)/increase in trade and bills payables		**(51,811)**	215,246
Increase in other payables and accruals		**106,317**	214,134
Cash generated from operations		**1,413,589**	1,204,384
Income tax paid		**(263,338)**	(130,286)
Net cash flows from operating activities		**1,150,251**	1,074,098

Consolidated Statement of Cash Flows (continued)

Year ended 31 December 2018

	Notes	2018 RMB'000	2017 RMB'000
CASH FLOWS FROM INVESTING ACTIVITIES			
Interest received		**63,714**	13,685
Purchases of items of property, plant and equipment		**(247,320)**	(138,462)
Purchase of financial assets at fair value through profit or loss		**(2,489,510)**	—
Purchase of equity investments designated at fair value through other comprehensive income		**(67,469)**	—
Purchase of available-for-sale investments		**—**	(1,746,921)
Proceeds from disposal of financial assets at fair value through profit or loss		**3,126,004**	—
Proceeds from disposal of equity investments designated at fair value through other comprehensive income		**42,946**	—
Proceeds from disposal of available-for-sale investments		**—**	1,401,234
Addition to land lease prepayment	15	**(28,959)**	(16,148)
Loans to related parties		**(230,742)**	(40,000)
Loans to a third party		**(9,608)**	(263,772)
Repayment of loans by related parties		**—**	50,000
Proceeds from disposal of investments in associates		**—**	136,885
Payment for investment in a joint venture	18	**(2,500)**	—
Payment for investments in associates		**(386,774)**	—
Addition to other intangible assets		**(186,117)**	(104,627)
Proceeds from disposal of items of property, plant and equipment		**3,098**	12,991
Received fund from government grants		**7,325**	51,920
Net cash flows used in investing activities		**(405,912)**	(643,215)
CASH FLOWS FROM FINANCING ACTIVITIES			
Proceeds from issue of convertible bonds		**—**	2,319,915
Received capital injection from a non-controlling shareholder		**60,000**	—
Decrease in pledged deposits		**(2,459)**	(5,694)
Repayments of bank borrowings		**(1,588,192)**	(1,132,923)
Acquisition of treasury shares		**(40,586)**	—
Proceeds from bank borrowings		**399,340**	300,000
Repayment to a related party		**—**	(37,825)
Dividend paid		**(150,813)**	—
Interest paid		**(66,968)**	(125,741)
Net cash flows (used in)/from financing activities		**(1,389,678)**	1,317,732
NET (DECREASE)/INCREASE IN CASH AND CASH EQUIVALENTS		**(645,339)**	1,748,615
Cash and cash equivalents at beginning of the year		**2,398,621**	677,598
Effect of foreign exchange rate changes on cash, net		**39,323**	(27,592)
CASH AND CASH EQUIVALENTS AT END OF THE YEAR		**1,792,605**	2,398,621
ANALYSIS OF BALANCES OF CASH AND CASH EQUIVALENTS			
Cash and bank balances	27	**1,791,104**	2,396,410
Restricted cash	27	**1,501**	2,211
Cash and cash equivalents as stated in the consolidated statement of financial position and the consolidated statement of cash flows		**1,792,605**	2,398,621

Notes to Financial Statements

31 December 2018

1. Corporate and group information

3SBio Inc. (the "**Company**") was incorporated in the Cayman Islands as an exempted company with limited liability under the Cayman Islands Companies Laws on 9 August 2006. The registered office address of the Company is Cricket Square, Hutchins Drive, P.O. Box 2681, Grand Cayman, KY1-1111, Cayman Islands. The Company's shares were listed on the Main Board of the Stock Exchange of Hong Kong Limited (the "**Stock Exchange**") on 11 June 2015.

The Company is an investment holding company. During the year, the subsidiaries of the Company were principally engaged in the development, production, marketing and sale of biopharmaceutical products in the People's Republic of China (the "**PRC**") except for Taiwan, Hong Kong and Macau ("**Mainland China**").

Information about subsidiaries

Particulars of the Company's principal subsidiaries are as follows:

Company name	Place and date of incorporation/ registration and place of operations	Nominal value of issued ordinary/ registered share capital	Percentage of equity attributable to the Company		Principal activities
			Direct	Indirect	
Collected Mind Limited ("**Collected Mind**") (集思有限公司)	British Virgin Islands* 3 May 2006	United States Dollar ("**USD**") 1	100%	—	Investment holding
Hongkong Sansheng Medical Limited ("**Hongkong Sansheng**") (香港三生醫藥有限公司)	Hong Kong 3 November 2009	Hong Kong Dollar ("**HKD**") 2	—	100%	Trading and investment holding
Shenyang Sunshine Pharmaceutical Co., Ltd. ("**Shenyang Sunshine**") (瀋陽三生製藥有限責任公司)	PRC/Mainland China* 3 January 1993	Renminbi ("**RMB**") 2,500,000,000	—	100%	Manufacture and sale of biopharmaceutical drugs and research and development
Liaoning Sunshine Bio-Pharmaceutical Company Ltd. ("**Liaoning Sunshine**") (遼寧三生醫藥有限公司)	PRC/Mainland China* 1 February 2000	RMB15,000,000	—	100%	Distribution and sale of pharmaceutical drugs

1. Corporate and group information (continued)

Information about subsidiaries (continued)

Company name	Place and date of incorporation/ registration and place of operations	Nominal value of issued ordinary/ registered share capital	Percentage of equity attributable to the Company		Principal activities
			Direct	Indirect	
Taizhou Huan Sheng Investment Management Company Ltd. (泰州環晟投資管理有限公司)	PRC/Mainland China* 29 December 2010	RMB1,000,000	—	100%	Project management and consultation
Taizhou Huan Sheng Healthcare Industry Investment Centre LLP ("**Taizhou Centre**") (泰州環晟健康產業投資中心)	PRC/Mainland China* 30 May 2011	RMB250,000,000	—	80%	Investment holding
Excel Partner Holdings Limited ("**Excel Partner**") (特隆控股有限公司)	Hong Kong* 8 July 2010	HKD1	—	100%	Investment holding
Sirton Pharmaceuticals S.p.A. ("**Sirton**")	Italy 22 November 2010	Euro ("**EUR**")300,000	—	100%	Manufacture and sale of pharmaceutical drugs and research and development
Ample Harvest Investments Limited ("**Ample Harvest**") (溢豐投資有限公司)	British Virgin Islands* 2 January 2003	USD10	—	100%	Investment holding

1. Corporate and group information (continued)

Information about subsidiaries (continued)

Company name	Place and date of incorporation/ registration and place of operations	Nominal value of issued ordinary/ registered share capital	Percentage of equity attributable to the Company		Principal activities
			Direct	Indirect	
Shenzhen Baishitong Technology Development Company Limited ("**Shenzhen Baishitong**") (深圳市百士通科技開發有限公司)	PRC/Mainland China* 8 March 2002	RMB500,000	—	100%	Investment holding
Shenzhen Sciprogen Bio-pharmaceutical Co., Ltd. ("**Sciprogen**") (深圳賽保爾生物藥業有限公司)	PRC/Mainland China* 22 March 1999	RMB160,000,000	—	100%	Manufacture and sale of pharmaceutical drugs and research and development
Guangdong Sciprogen Bio-pharmaceutical Technology Co., Ltd. ("**Guangdong Sciprogen**") (廣東賽保爾生物醫藥技術有限公司)	PRC/Mainland China* 30 June 2011	RMB10,000,000	—	100%	Manufacture and sale of pharmaceutical drugs and research and development
Zhejiang Wansheng Pharmaceutical Co., Ltd. ("**Zhejiang Wansheng**") (浙江萬晟藥業有限公司)	PRC/Mainland China* 27 October 1997	RMB56,500,000	—	100%	Manufacture and sale of pharmaceutical drugs and research and development
Gains Prestige Limited ("**Gains Prestige**") (澤威有限公司)	British Virgin Islands* 2 September 2014	HKD8	100%	—	Investment holding

1. Corporate and group information (continued)

Information about subsidiaries (continued)

Company name	Place and date of incorporation/ registration and place of operations	Nominal value of issued ordinary/ registered share capital	Percentage of equity attributable to the Company		Principal activities
			Direct	Indirect	
Full Gain Limited ("**Full Gain**") (富健藥業有限公司)	Hong Kong* 6 October 2014	HKD1	—	100%	Investment holding
Shanghai Aoxi Technology Information Consulting Co., Ltd. ("**Shanghai Aoxi**") (上海澳曦科技信息諮詢有限公司)	PRC/Mainland China* 18 December 2014	RMB100,000	—	100%	Project management and consultation
Shanghai Xingsheng Pharmaceutical Company Limited ("**Xing Sheng**") (上海興生藥業有限公司)	PRC/Mainland China* 23 December 1998	RMB410,000,000	—	96.25%	Investment holding
Sunshine Guojian Pharmaceutical (Shanghai) Co., Ltd. ("**Sunshine Guojian**") (三生國健藥業(上海)股份有限公司)	PRC/Mainland China 25 January 2002	RMB510,223,050	—	96.22%	Manufacture and sale of biopharmaceutical drugs and research and development
National Engineering Research Center of Antibody Medicine ("**NERC**") (上海抗體藥物國家工程研究中心有限公司)	PRC/Mainland China 15 January 2009	RMB260,000,000	—	61.54%	Manufacture and sale of biopharmaceutical drugs and research and development
Cn-Gen Mab Co., Ltd. ("**Cn-Gen Mab**") (中健抗體有限公司)	Hong Kong* 19 September 2012	HKD1,000,000	—	100%	Distribution and sale of pharmaceutical drugs

1. Corporate and group information (continued)

Information about subsidiaries (continued)

Company name	Place and date of incorporation/ registration and place of operations	Nominal value of issued ordinary/ registered share capital	Percentage of equity attributable to the Company		Principal activities
			Direct	Indirect	
Sunshine Guojian Pharmaceutical (Suzhou) Co., Ltd. (三生國健藥業(蘇州)有限公司)	PRC/Mainland China* 25 November 2013	RMB150,000,000	–	100%	Manufacture and sale of biopharmaceutical drugs and research and development
Shanghai Shengguo Pharmaceutical Development Co., Ltd. (上海晟國醫藥發展有限公司)	PRC/Mainland China* 29 January 2014	RMB100,000,000	–	100%	Technology services
Shanghai Hongshang Investment Co., Ltd. ("**Shanghai Hongshang**") (上海翃熵投資諮詢有限公司)	PRC/Mainland China* 5 November 2015	RMB1,034,100,000	–	100%	Investment holding
Guangdong Sunshine Pharmaceutical Co., Ltd ("**Guangdong Sunshine**") (廣東三生製藥有限公司)	PRC/Mainland China* 7 December 2016	RMB40,000,000	–	100%	Manufacture and sale of biopharmaceutical drugs and research and development
Strategic International Group Limited ("**Strategic**")	British Virgin Islands* 14 June 2017	EUR50,000	100%	–	Investment holding
NMV Desen Biotech Co., Ltd. ("**Desen Biotech**") (北方藥穀德生(瀋陽)生物科技有限責任公司) (a)	PRC/Mainland China* 26 February 2018	RMB2,830,000,000	–	86.93%	Manufacture and sale of biopharmaceutical drugs and research and development

* Not audited by Ernst & Young, Hong Kong or another member firm of the Ernst & Young global network.

(a) Desen Biotech was newly established on 26 February 2018 as a subsidiary of the Company.

1. Corporate and group information (continued)

The English names of these companies registered in the PRC represent the best effort made by the management of the Company to directly translate their Chinese names as these companies do not register any official English names.

The above table lists the subsidiaries of the Company which, in the opinion of the directors, principally affected the results for the year or formed a substantial portion of the net assets of the Company and its subsidiaries (together, the "**Group**"). To give details of other subsidiaries would, in the opinion of the directors, result in particulars of excessive length.

2.1 Basis of preparation

These financial statements have been prepared in accordance with International Financial Reporting Standards ("**IFRSs**") (which include all International Financial Reporting Standards, International Accounting Standards ("**IASs**") and Interpretations) issued by the International Accounting Standards Board ("**IASB**"), accounting principles generally accepted in Hong Kong and the disclosure requirements of the Hong Kong Companies Ordinance. They have been prepared under the historical cost convention, except for a derivative financial instrument, equity investments and certain financial assets which have been measured at fair value. These financial statements are presented in RMB and all values are rounded to the nearest thousand except when otherwise indicated.

Basis of consolidation

The consolidated financial statements include the financial statements of the Company and its subsidiaries (collectively referred to as the "**Group**") for the year ended 31 December 2018. A subsidiary is an entity (including a structured entity), directly or indirectly, controlled by the Company. Control is achieved when the Group is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee (i.e., existing rights that give the Group the current ability to direct the relevant activities of the investee).

When the Company has, directly or indirectly, less than a majority of the voting or similar rights of an investee, the Group considers all relevant facts and circumstances in assessing whether it has power over an investee, including:

(a) the contractual arrangement with the other vote holders of the investee;

(b) rights arising from other contractual arrangements; and

(c) the Group's voting rights and potential voting rights.

2.1 Basis of preparation (continued)

Basis of consolidation (continued)

The financial statements of the subsidiaries are prepared for the same reporting period as the Company, using consistent accounting policies. The results of subsidiaries are consolidated from the date on which the Group obtains control, and continue to be consolidated until the date that such control ceases.

Profit or loss and each component of other comprehensive income are attributed to the owners of the parent of the Group and to the non-controlling interests, even if this results in the non-controlling interests having a deficit balance. All intra-group assets and liabilities, equity, income, expenses and cash flows relating to transactions between members of the Group are eliminated in full on consolidation.

The Group reassesses whether or not it controls an investee if facts and circumstances indicate that there are changes to one or more of the three elements of control described above. A change in the ownership interest of a subsidiary, without a loss of control, is accounted for as an equity transaction.

If the Group loses control over a subsidiary, it derecognises (i) the assets (including goodwill) and liabilities of the subsidiary, (ii) the carrying amount of any non-controlling interest and (iii) the cumulative translation differences recorded in equity; and recognises (i) the fair value of the consideration received, (ii) the fair value of any investment retained and (iii) any resulting surplus or deficit in profit or loss. The Group's share of components previously recognised in other comprehensive income is reclassified to profit or loss or retained profits, as appropriate, on the same basis as would be required if the Group had directly disposed of the related assets or liabilities.

2.2 Changes in accounting polices and disclosures

The Group has adopted the following new and revised IFRSs for the first time for the current year's financial statements.

Amendments to IFRS 2	*Classification and Measurement of Share-based Payment Transactions*
Amendments to IFRS 4	*Applying IFRS 9 Financial Instruments with IFRS 4 Insurance Contracts*
IFRS 9	*Financial Instruments*
IFRS 15	*Revenue from Contracts with Customers*
Amendments to IFRS 15	*Clarifications to IFRS 15 Revenue from Contracts with Customers*
Amendments to IAS 40	*Transfers of Investment Property*
IFRIC 22	*Foreign Currency Transactions and Advance Consideration*
Annual Improvements 2014-2016 Cycle	Amendments to IFRS 1 and IAS 28

2.2 Changes in accounting polices and disclosures (continued)

Except for the amendments to IFRS 4, Amendments to IAS 40 and *Annual Improvements 2014–2016 Cycle*, which are not relevant to the preparation of the Group's financial statements, the nature and the impact of the new and revised IFRSs are described below:

(a) Amendments to IFRS 2 address three main areas: the effects of vesting conditions on the measurement of a cash-settled share-based payment transaction; the classification of a share-based payment transaction with net settlement features for withholding a certain amount in order to meet an employee's tax obligation associated with the share-based payment; and accounting where a modification to the terms and conditions of a share-based payment transaction changes its classification from cash-settled to equity-settled. The amendments clarify that the approach used to account for vesting conditions when measuring equity-settled share-based payments also applies to cash-settled share-based payments. The amendments introduce an exception so that a share-based payment transaction with net share settlement features for withholding a certain amount in order to meet the employee's tax obligation is classified in its entirety as an equity-settled share-based payment transaction when certain conditions are met. Furthermore, the amendments clarify that if the terms and conditions of a cash-settled share-based payment transaction are modified, with the result that it becomes an equity-settled share-based payment transaction, the transaction is accounted for as an equity-settled transaction from the date of the modification. The amendments have had no impact on the financial position or performance of the Group as the Group does not have any cash-settled share-based payment transactions and has no share-based payment transactions with net settlement features for withholding tax.

(b) IFRS 9 *Financial Instruments* replaces IAS 39 *Financial Instruments: Recognition and Measurement* for annual periods beginning on or after 1 January 2018, bringing together all three aspects of the accounting for financial instruments: classification and measurement, impairment and hedge accounting.

The Group has recognised the transition adjustments against the applicable opening balances in equity at 1 January 2018. Therefore, the comparative information was not restated and continues to be reported under IAS 39.

Classification and measurement

The following information sets out the impacts of adopting IFRS 9 on the statement of financial position, including the effect of replacing IAS 39's incurred credit loss calculations with IFRS 9's expected credit losses ("**ECLs**").

2.2 Changes in accounting polices and disclosures (continued)

(b) (continued)

Classification and measurement (continued)

A reconciliation between the carrying amounts under IAS 39 and the balances reported under IFRS 9 as at 1 January 2018 is as follows:

		IAS 39 measurement				IFRS 9 measurement	
	Notes	Category	Amount RMB'000	Re-classification RMB'000	ECL RMB'000	Amount RMB'000	Category
Financial assets							
Equity investments designated at fair value through other comprehensive income		N/A	–	81,143	–	81,143	FVOCI[1] (equity)
From: Available-for-sale investments	(i)			81,143	–		
Available-for-sale investments		AFS[2]	752,897	(752,897)	–	–	N/A
To: Equity investments designated at fair value through other comprehensive income	(i)			(81,143)	–		
To: Financial assets at fair value through profit or loss	(ii)			(671,754)	–		
Trade and notes receivables	(iii)	L&R[3]	1,324,084	–	–	1,324,084	AC[4]
Long-term receivables		L&R	35,372	–	–	35,372	AC
Financial assets included in prepayments, other receivables and other assets		L&R	364,971	–	–	364,971	AC
Financial assets at fair value through profit or loss		FVPL[5]	–	671,754	–	671,754	FVPL (mandatory)
From: Available-for-sale investments	(ii)			671,754	–		

2.2 Changes in accounting polices and disclosures (continued)

(b) (continued)

Classification and measurement (continued)

	Notes	IAS 39 measurement Category	Amount RMB'000	Re-classification RMB'000	ECL RMB'000	IFRS 9 measurement Amount RMB'000	Category
Financial assets (continued)							
Derivative financial instrument		FVPL	1,322	—	—	1,322	FVPL
Cash and cash equivalents		L&R	2,398,621	—	—	2,398,621	AC
Pledged deposits		L&R	11,845	—	—	11,845	AC
			4,889,112	—	—	4,889,112	
Financial liabilities							
Trade and bills payables		AC	274,568	—	—	274,568	AC
Convertible bonds		AC	2,271,874	—	—	2,271,874	AC
Financial liabilities included in other payables and accruals		AC	188,542	—	—	188,542	AC
Financial liabilities included in other non-current liabilities		AC	12,350	—	—	12,350	AC
Interest-bearing bank and other borrowings		AC	2,134,257	—	—	2,134,257	AC
			4,881,591	—	—	4,881,591	

1 FVOCI: Financial assets at fair value through other comprehensive income

2 AFS: Available-for-sale investments

3 L&R: Loans and receivables

4 AC: Financial assets or financial liabilities at amortised cost

5 FVPL: Financial assets at fair value through profit or loss

2.2 Changes in accounting polices and disclosures (continued)

(b) (continued)

Classification and measurement (continued)

Notes:

(i) The Group has elected the option to irrevocably designate certain of its previous available-for-sale equity investments as equity investments at fair value through other comprehensive income.

(ii) The Group has classified its treasury or cash management products previously classified as available-for-sale investments as financial assets measured at fair value through profit or loss as these treasury or cash management products did not pass the contractual cash flow characteristics test in IFRS 9.

(iii) The gross carrying amounts of the trade and notes receivables under the column "IAS 39 measurement — Amount" represent the amounts after adjustments for the adoption of IFRS 15 but before the measurement of ECLs.

Impairment

The following table reconciles the aggregate opening impairment allowances under IAS 39 to the ECL allowances under IFRS 9.

	Impairment allowances under IAS 39 at 31 December 2017 RMB'000	Re-measurement RMB'000	ECL allowances under IFRS 9 at 1 January 2018 RMB'000
Trade and notes receivables	27,007	—	**27,007**
Long-term receivables	1,845	—	**1,845**
Financial assets included in prepayments, other receivables and other assets	656	—	**656**
	29,508	—	**29,508**

2.2 Changes in accounting polices and disclosures (continued)

(b) (continued)

Impact on other comprehensive income

A reconciliation between the amounts under IAS 39 and the balances reported under IFRS 9 as at 1 January 2018 is as follows:

	IAS 39 measurement Amount RMB'000	Re-classification RMB'000	IFRS 9 measurement Amount RMB'000
Other comprehensive income/ (loss) that will not be reclassified to profit or loss in subsequent periods:			
Equity investments designated at fair value through other comprehensive income	—	(4,450)	(4,450)
From: Other comprehensive income/ (loss) that may be reclassified to profit or loss in subsequent periods:			
Available-for-sale investments	(4,450)	4,450	—

(c) IFRS 15 and its amendments replace IAS 11 *Construction Contracts*, IAS 18 *Revenue* and related interpretations and it applies, with limited exceptions, to all revenue arising from contracts with customers. IFRS 15 establishes a new five-step model to account for revenue arising from contracts with customers. Under IFRS 15, revenue is recognised at an amount that reflects the consideration to which an entity expects to be entitled in exchange for transferring goods or services to a customer. The principles in IFRS 15 provide a more structured approach for measuring and recognising revenue. The standard also introduces extensive qualitative and quantitative disclosure requirements, including disaggregation of total revenue, information about performance obligations, changes in contract asset and liability account balances between periods and key judgements and estimates. The disclosures are included in notes 3 and 5 to the financial statements. As a result of the application of IFRS 15, the Group has changed the accounting policy with respect to revenue recognition in note 2.4 to the financial statements.

2.2 Changes in accounting polices and disclosures (continued)

(c) (continued)

The Group has adopted IFRS 15 using the modified retrospective method of adoption. The Group has elected to apply the standard to contracts that are not completed as at 1 January 2018.

The cumulative effect of the initial application of IFRS 15 was recognised as an adjustment to the opening balance of retained profits as at 1 January 2018. Therefore, the comparative information was not restated and continues to be reported under IAS 11, IAS 18 and related interpretations.

The Group provides a right of return and trade discounts for some of the sales contracts of biopharmaceutical products with customers. Currently, the Group recognises revenue from the sale of goods measured at fair value of the consideration received or receivable, net of returns and allowances and trade discounts. If revenue cannot be reliably measured, revenue recognition is deferred until the uncertainty is resolved. Under IFRS 15, a transaction price is considered variable if a customer is provided with a right of return and trade discounts. The Group is required to estimate the amount of consideration to which it will be entitled in the sales of its biopharmaceutical products and the estimated amount of variable consideration will be included in the transaction price 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.

Upon the adoption of IFRS 15, the Group reclassified the advances from customers to “Contract liabilities”. As at 1 January 2018, the Group had advances from customers amounting to RMB76,854,000 that were reclassified to contract liabilities at the initial application of IFRS 15.

The adoption of the IFRS 15 has had no significant financial effect on these consolidated financial statements.

2.3 Issued but not yet effective international financial reporting standards

The Group has not applied the following new and revised IFRSs, that have been issued but are not yet effective, in these financial statements.

Amendments to IFRS 3	*Definition of a Business*[2]
Amendments to IFRS 9	*Prepayment Features with Negative Compensation*[1]
Amendments to IFRS 10 and IAS 28	*Sale or Contribution of Assets between an Investor and its Associate or Joint Venture*[4]
IFRS 16	*Leases*[1]
IFRS 17	*Insurance Contracts*[3]
Amendments to IAS 1 and IAS 8	*Definition of Material*[2]
Amendments to IAS 19	*Plan Amendment, Curtailment or Settlement*[1]
Amendments to IAS 28	*Long-term Interests in Associates and Joint Ventures*[1]
IFRIC 23	*Uncertainty over Income Tax Treatments*[1]
Annual Improvements 2015–2017 Cycle	Amendments to IFRS 3, IFRS 11, IAS 12 and IAS 23[1]

1 Effective for annual periods beginning on or after 1 January 2019
2 Effective for annual periods beginning on or after 1 January 2020
3 Effective for annual periods beginning on or after 1 January 2021
4 No mandatory effective date yet determined but available for adoption

Further information about those IFRSs that are expected to be applicable to the Group is described below.

Amendments to IFRS 3 clarify and provide additional guidance on the definition of a business. The amendments clarify that for an integrated set of activities and assets to be considered a business, it must include, at a minimum, an input and a substantive process that together significantly contribute to the ability to create output. A business can exist without including all of the inputs and processes needed to create outputs. The amendments remove the assessment of whether market participants are capable of acquiring the business and continue to produce outputs. Instead, the focus is on whether acquired inputs and acquired substantive processes together significantly contribute to the ability to create outputs. The amendments have also narrowed the definition of outputs to focus on goods or services provided to customers, investment income or other income from ordinary activities. Furthermore, the amendments provide guidance to assess whether an acquired process is substantive and introduce an optional fair value concentration test to permit a simplified assessment of whether an acquired set of activities and assets is not a business. The Group expects to adopt the amendments prospectively from 1 January 2020.

2.3 Issued but not yet effective international financial reporting standards (continued)

Amendments to IFRS 10 and IAS 28 address an inconsistency between the requirements in IFRS 10 and in IAS 28 in dealing with the sale or contribution of assets between an investor and its associate or joint venture. The amendments require a full recognition of a gain or loss when the sale or contribution of assets between an investor and its associate or joint venture constitutes a business. For a transaction involving assets that do not constitute a business, a gain or loss resulting from the transaction is recognised in the investor's profit or loss only to the extent of the unrelated investor's interest in that associate or joint venture. The amendments are to be applied prospectively. The previous mandatory effective date of amendments to IFRS 10 and IAS 28 was removed by the IASB in December 2015 and a new mandatory effective date will be determined after the completion of a broader review of accounting for associates and joint ventures.

IFRS 16 replaces IAS 17 *Leases*, IFRIC 4 *Determining whether an Arrangement contains a Lease*, SIC 15 *Operating Leases — Incentives* and SIC 27 *Evaluating the Substance of Transactions Involving the Legal Form of a Lease*. The standard sets out the principles for the recognition, measurement, presentation and disclosure of leases and requires lessees to recognise assets and liabilities for most leases. The standard includes two elective recognition exemptions for lessees — leases of low-value assets and short-term leases. At the commencement date of a lease, a lessee will recognise a liability to make lease payments (i.e., the lease liability) and an asset representing the right to use the underlying asset during the lease term (i.e., the right-of-use asset).The right-of-use asset is subsequently measured at cost less accumulated depreciation and any impairment losses unless the right-of-use asset meets the definition of investment property in IAS 40, or relates to a class of property, plant and equipment to which the revaluation model is applied. The lease liability is subsequently increased to reflect the interest on the lease liability and reduced for the lease payments. Lessees will be required to separately recognise the interest expense on the lease liability and the depreciation expense on the right-of-use asset. Lessees will also be required to remeasure the lease liability upon the occurrence of certain events, such as change in the lease term and change in future lease payments resulting from a change in an index or rate used to determine those payments. Lessees will generally recognise the amount of the remeasurement of the lease liability as an adjustment to the right-of-use asset. Lessor accounting under IFRS 16 is substantially unchanged from the accounting under IAS 17. Lessors will continue to classify all leases using the same classification principle as in IAS 17 and distinguish between operating leases and finance leases. IFRS 16 requires lessees and lessors to make more extensive disclosures than under IAS 17. Lessees can choose to apply the standard using either a full retrospective or a modified retrospective approach. The Group will adopt IFRS 16 from 1 January 2019. The amendments are not expected to have any significant impact on the Group's financial statements.

2.3 Issued but not yet effective international financial reporting standards (continued)

Amendments to IAS 1 and IAS 8 provide a new definition of material. The new definition states that information is material if omitting, misstating or obscuring it could reasonably be expected to influence decisions that the primary users of general purpose financial statements make on the basis of those financial statements. The amendments clarify that materiality will depend on the nature or magnitude of information. A misstatement of information is material if it could reasonably be expected to influence decisions made by the primary users. The Group expects to adopt the amendments prospectively from 1 January 2020. The amendments are not expected to have any significant impact on the Group's financial statements.

Amendments to IAS 28 clarify that the scope exclusion of IFRS 9 only includes interests in an associate or joint venture to which the equity method is applied and does not include long-term interests that in substance form part of the net investment in the associate or joint venture, to which the equity method has not been applied. Therefore, an entity applies IFRS 9, rather than IAS 28, including the impairment requirements under IFRS 9, in accounting for such long-term interests. IAS 28 is then applied to the net investment, which includes the long-term interests, only in the context of recognising losses of an associate or joint venture and impairment of the net investment in the associate or joint venture. The Group expects to adopt the amendments on 1 January 2019. The amendments are not expected to have any significant impact on the Group's financial statements.

(IFRIC)-Int 23 addresses the accounting for income taxes (current and deferred) when tax treatments involve uncertainty that affects the application of IAS 12 (often referred to as "**uncertain tax positions**"). The interpretation does not apply to taxes or levies outside the scope of IAS 12, nor does it specifically include requirements relating to interest and penalties associated with uncertain tax treatments. The interpretation specifically addresses (i) whether an entity considers uncertain tax treatments separately; (ii) the assumptions an entity makes about the examination of tax treatments by taxation authorities; (iii) how an entity determines taxable profits or tax losses, tax bases, unused tax losses, unused tax credits and tax rates; and (iv) how an entity considers changes in facts and circumstances. The interpretation is to be applied retrospectively, either fully retrospectively without the use of hindsight or retrospectively with the cumulative effect of application as an adjustment to the opening equity at the date of initial application, without the restatement of comparative information. The Group expects to adopt the interpretation from 1 January 2019. The interpretation is not expected to have any significant impact on the Group's financial statements.

2.4 Summary of significant accounting policies

Investments in associates and joint ventures

An associate is an entity in which the Group has a long term interest of generally not less than 20% of the equity voting rights and over which it is in a position to exercise significant influence. Significant influence is the power to participate in the financial and operating policy decisions of the investee, but is not control or joint control over those policies.

A joint venture is a type of joint arrangement whereby the parties that have joint control of the arrangement have rights to the net assets of the joint venture. Joint control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require the unanimous consent of the parties sharing control.

The Group's investments in associates and joint ventures are stated in the consolidated statement of financial position at the Group's share of net assets under the equity method of accounting, less any impairment losses. Adjustments are made to bring into line any dissimilar accounting policies that may exist.

The Group's share of the post-acquisition results and other comprehensive income of associates and joint ventures is included in the consolidated statement of profit or loss and consolidated other comprehensive income, respectively. In addition, when there has been a change recognised directly in the equity of the associate or joint venture, the Group recognises its share of any changes, when applicable, in the consolidated statement of changes in equity. Unrealised gains and losses resulting from transactions between the Group and its associates or joint ventures are eliminated to the extent of the Group's investments in the associates or joint ventures, except where unrealised losses provide evidence of an impairment of the assets transferred. Goodwill arising from the acquisition of associates or joint ventures is included as part of the Group's investments in associates or joint ventures.

If an investment in an associate becomes an investment in a joint venture or vice versa, the retained interest is not remeasured. Instead, the investment continues to be accounted for under the equity method. In all other cases, upon loss of significant influence over the associate or joint control over the joint venture, the Group measures and recognises any retained investment at its fair value. Any difference between the carrying amount of the associate or joint venture upon loss of significant influence or joint control and the fair value of the retained investment and proceeds from disposal is recognised in profit or loss.

When an investment in an associate or a joint venture is classified as held for sale, it is accounted for in accordance with IFRS 5 *Non-current Assets Held for Sale and Discontinued Operations*.

2.4 Summary of significant accounting policies (continued)

Business combinations and goodwill

Business combinations are accounted for using the acquisition method. The consideration transferred is measured at the acquisition date fair value which is the sum of the acquisition date fair values of assets transferred by the Group, liabilities assumed by the Group to the former owners of the acquiree and the equity interests issued by the Group in exchange for control of the acquiree. For each business combination, the Group elects whether to measure the non-controlling interests in the acquiree that are present ownership interests and entitle their holders to a proportionate share of net assets in the event of liquidation at fair value or at the proportionate share of the acquiree's identifiable net assets. All other components of non-controlling interests are measured at fair value. Acquisition-related costs are expensed as incurred.

When the Group acquires a business, it assesses the financial assets and liabilities assumed for appropriate classification and designation in accordance with the contractual terms, economic circumstances and pertinent conditions as at the acquisition date. This includes the separation of embedded derivatives in host contracts of the acquiree.

If the business combination is achieved in stages, the previously held equity interest is remeasured at its acquisition date fair value and any resulting gain or loss is recognised in profit or loss.

Any contingent consideration to be transferred by the acquirer is recognised at fair value at the acquisition date. Contingent consideration classified as an asset or liability is measured at fair value with changes in fair value recognised in profit or loss. Contingent consideration that is classified as equity is not remeasured and subsequent settlement is accounted for within equity.

Goodwill is initially measured at cost, being the excess of the aggregate of the consideration transferred, the amount recognised for non-controlling interests and any fair value of the Group's previously held equity interests in the acquiree over the identifiable net assets acquired and liabilities assumed. If the sum of this consideration and other items is lower than the fair value of the net assets acquired, the difference is, after reassessment, recognised in profit or loss as a gain on bargain purchase.

2.4 Summary of significant accounting policies (continued)

Business combinations and goodwill (continued)

After initial recognition, goodwill is measured at cost less any accumulated impairment losses. Goodwill is tested for impairment annually or more frequently if events or changes in circumstances indicate that the carrying value may be impaired. The Group performs its annual impairment test of goodwill as at 31 December. For the purpose of impairment testing, goodwill acquired in a business combination is, from the acquisition date, allocated to each of the Group's cash-generating units, or groups of cash-generating units, that are expected to benefit from the synergies of the combination, irrespective of whether other assets or liabilities of the Group are assigned to those units or groups of units.

Impairment is determined by assessing the recoverable amount of the cash-generating unit (group of cash-generating units) to which the goodwill relates. Where the recoverable amount of the cash-generating unit (group of cash-generating units) is less than the carrying amount, an impairment loss is recognised. An impairment loss recognised for goodwill is not reversed in a subsequent period.

Where goodwill has been allocated to a cash-generating unit (or group of cash-generating units) and part of the operation within that unit is disposed of, the goodwill associated with the operation disposed of is included in the carrying amount of the operation when determining the gain or loss on the disposal. Goodwill disposed of in these circumstances is measured based on the relative value of the operation disposed of and the portion of the cash-generating unit retained.

Fair value measurement

The Group measures its derivative financial instruments and equity investments at fair value at the end of each reporting period. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The fair value measurement is based on the presumption that the transaction to sell the asset or transfer the liability takes place either in the principal market for the asset or liability, or in the absence of a principal market, in the most advantageous market for the asset or liability. The principal or the most advantageous market must be accessible by the Group. The fair value of an asset or a liability is measured using the assumptions that market participants would use when pricing the asset or liability, assuming that market participants act in their economic best interest.

2.4 Summary of significant accounting policies (continued)

Fair value measurement (continued)

A fair value measurement of a non-financial asset takes into account a market participant's ability to generate economic benefits by using the asset in its highest and best use or by selling it to another market participant that would use the asset in its highest and best use.

The Group uses valuation techniques that are appropriate in the circumstances and for which sufficient data are available to measure fair value, maximising the use of relevant observable inputs and minimising the use of unobservable inputs.

All assets and liabilities for which fair value is measured or disclosed in the financial statements are categorised within the fair value hierarchy, described as follows, based on the lowest level input that is significant to the fair value measurement as a whole:

Level 1 — based on quoted prices (unadjusted) in active markets for identical assets or liabilities

Level 2 — based on valuation techniques for which the lowest level input that is significant to the fair value measurement is observable, either directly or indirectly

Level 3 — based on valuation techniques for which the lowest level input that is significant to the fair value measurement is unobservable

For assets and liabilities that are recognised in the financial statements on a recurring basis, the Group determines whether transfers have occurred between levels in the hierarchy by reassessing categorisation (based on the lowest level input that is significant to the fair value measurement as a whole) at the end of each reporting period.

Impairment of non-financial assets

Where an indication of impairment exists, or when annual impairment testing for an asset is required (other than inventories, financial assets, investment properties and non-current assets/a disposal group classified as held for sale), the asset's recoverable amount is estimated. An asset's recoverable amount is the higher of the asset's or cash-generating unit's value in use and its fair value less costs of disposal, and is determined for an individual asset, unless the asset does not generate cash inflows that are largely independent of those from other assets or groups of assets, in which case the recoverable amount is determined for the cash-generating unit to which the asset belongs.

2.4 Summary of significant accounting policies (continued)

Impairment of non-financial assets (continued)

An impairment loss is recognised only if the carrying amount of an asset exceeds its recoverable amount. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. An impairment loss is charged to the statement of profit or loss in the period in which it arises in those expense categories consistent with the function of the impaired asset.

An assessment is made at the end of each reporting period as to whether there is an indication that previously recognised impairment losses may no longer exist or may have decreased. If such an indication exists, the recoverable amount is estimated. A previously recognised impairment loss of an asset other than goodwill is reversed only if there has been a change in the estimates used to determine the recoverable amount of that asset, but not to an amount higher than the carrying amount that would have been determined (net of any depreciation/amortisation) had no impairment loss been recognised for the asset in prior years. A reversal of such an impairment loss is credited to the statement of profit or loss in the period in which it arises, unless the asset is carried at a revalued amount, in which case the reversal of the impairment loss is accounted for in accordance with the relevant accounting policy for that revalued asset.

Related parties

A party is considered to be related to the Group if:

(a) the party is a person or a close member of that person's family and that person

(i) has control or joint control over the Group;

(ii) has significant influence over the Group; or

(iii) is a member of the key management personnel of the Group or of a parent of the Group;

or

2.4 Summary of significant accounting policies (continued)

Related parties (continued)

(b) the party is an entity where any of the following conditions applies:

(i) the entity and the Group are members of the same group;

(ii) one entity is an associate or joint venture of the other entity (or of a parent, subsidiary or fellow subsidiary of the other entity);

(iii) the entity and the Group are joint ventures of the same third party;

(iv) one entity is a joint venture of a third entity and the other entity is an associate of the third entity;

(v) the entity is a post-employment benefit plan for the benefit of employees of either the Group or an entity related to the Group; and the sponsoring employers of the post-employment benefit plan;

(vi) the entity is controlled or jointly controlled by a person identified in (a);

(vii) a person identified in (a)(i) has significant influence over the entity or is a member of the key management personnel of the entity (or of a parent of the entity); and

(viii) the entity, or any member of a group of which it is a part, provides key management personnel services to the Group or to the parent of the Group.

Property, plant and equipment and depreciation

Property, plant and equipment, other than construction in progress, are stated at cost less accumulated depreciation and any impairment losses. The cost of an item of property, plant and equipment comprises its purchase price and any directly attributable costs of bringing the asset to its working condition and location for its intended use.

2.4 Summary of significant accounting policies (continued)

Property, plant and equipment and depreciation (continued)

Expenditure incurred after items of property, plant and equipment have been put into operation, such as repairs and maintenance, is normally charged to the statement of profit or loss in the period in which it is incurred. In situations where the recognition criteria are satisfied, the expenditure for a major inspection is capitalised in the carrying amount of the asset as a replacement. Where significant parts of property, plant and equipment are required to be replaced at intervals, the Group recognises such parts as individual assets with specific useful lives and depreciates them accordingly.

Depreciation is calculated on the straight-line basis to write off the cost of each item of property, plant and equipment to its residual value over its estimated useful life. The estimated useful lives used for this purpose are as follows:

Freehold land	Not depreciated
Buildings	10–45 years
Plant and machinery	5–12 years
Furniture and fixtures	3–12 years
Motor vehicles	4–10 years

Where parts of an item of property, plant and equipment have different useful lives, the cost of that item is allocated on a reasonable basis among the parts and each part is depreciated separately. Residual values, useful lives and the depreciation method are reviewed, and adjusted if appropriate, at least at each financial year end.

An item of property, plant and equipment including any significant part initially recognised is derecognised upon disposal or when no future economic benefits are expected from its use or disposal. Any gain or loss on disposal or retirement recognised in the statement of profit or loss in the year the asset is derecognised is the difference between the net sales proceeds and the carrying amount of the relevant asset.

Construction in progress represents a building under construction, which is stated at cost less any impairment losses, and is not depreciated. Cost comprises the direct costs of construction and capitalised borrowing costs on related borrowed funds during the period of construction. Construction in progress is reclassified to the appropriate category of property, plant and equipment when completed and ready for use.

2.4 Summary of significant accounting policies (continued)

Intangible assets (other than goodwill)

Intangible assets acquired separately are measured on initial recognition at cost. The cost of intangible assets acquired in a business combination is the fair value at the date of acquisition. The useful lives of intangible assets are assessed to be either finite or indefinite. Intangible assets with finite lives are subsequently amortised over the useful economic life and assessed for impairment whenever there is an indication that the intangible asset may be impaired. The amortisation period and the amortisation method for an intangible asset with a finite useful life are reviewed at least at each financial year end.

Intangible assets with indefinite useful lives are tested for impairment annually either individually or at the cash-generating unit level. Such intangible assets are not amortised. The useful life of an intangible asset with an indefinite life is reviewed annually to determine whether the indefinite life assessment continues to be supportable. If not, the change in the useful life assessment from indefinite to finite is accounted for on a prospective basis.

Intangible assets are stated at cost less any impairment losses and are amortised on the straight-line basis over their estimated useful lives. The principal estimated useful lives of intangible assets are as follows:

Exclusive distribution right	5–25 years
Intellectual Property ("**IP**") rights	14–25 years
Patents and technology know-how	5–20 years
Others	1–10 years
In Progress Research and Development ("**IPR&D**")	Indefinite useful life

Research and development costs

All research costs are charged to the consolidated statement of profit or loss as incurred.

2.4 Summary of significant accounting policies (continued)

Intangible assets (other than goodwill) (continued)

Expenditure incurred on projects to develop new products is capitalised and deferred only when the Group can demonstrate the technical feasibility of completing the intangible asset so that it will be available for use or sale, its intention to complete and its ability to use or sell the asset, how the asset will generate future economic benefits, the availability of resources to complete the project and the ability to measure reliably the expenditure during the development. Product development expenditure which does not meet these criteria is expensed when incurred.

Deferred development costs are stated at cost less any impairment losses and are amortised using the straight-line basis over the commercial lives of the underlying products, commencing from the date when the products are put into commercial production.

Leases

Leases that transfer substantially all the rewards and risks of ownership of assets to the Group, other than legal title, are accounted for as finance leases. At the inception of a finance lease, the cost of the leased asset is capitalised at the present value of the minimum lease payments and recorded together with the obligation, excluding the interest element, to reflect the purchase and financing. Assets held under capitalised finance leases, including prepaid land lease payments under finance leases, are included in property, plant and equipment, and depreciated over the shorter of the lease terms and the estimated useful lives of the assets. The finance costs of such leases are charged to the statement of profit or loss so as to provide a constant periodic rate of charge over the lease terms.

Assets acquired through hire purchase contracts of a financing nature are accounted for as finance leases, but are depreciated over their estimated useful lives.

Leases where substantially all the rewards and risks of ownership of assets remain with the lessor are accounted for as operating leases. Where the Group is the lessor, assets leased by the Group under operating leases are included in non-current assets, and rentals receivable under the operating leases are credited to the statement of profit or loss on the straight-line basis over the lease terms. Where the Group is the lessee, rentals payable under operating leases net of any incentives received from the lessor are charged to the statement of profit or loss on the straight-line basis over the lease terms.

Prepaid land lease payments under operating leases are initially stated at cost and subsequently recognised on the straight-line basis over the lease terms of 30 to 50 years. When the lease payments cannot be allocated reliably between the land and buildings elements, the entire lease payments are included in the cost of the land and buildings as a finance lease in property, plant and equipment.

2.4 Summary of significant accounting policies (continued)

Investments and other financial assets (policies under IFRS 9 applicable from 1 January 2018)

Initial recognition and measurement

Financial assets are classified, at initial recognition, as subsequently measured at amortised cost, fair value through other comprehensive income, and fair value through profit or loss.

The classification of financial assets at initial recognition depends on the financial asset's contractual cash flow characteristics and the Group's business model for managing them. With the exception of trade receivables that do not contain a significant financing component or for which the Group has applied the practical expedient of not adjusting the effect of a significant financing component, the Group initially measures a financial asset at its fair value, plus in the case of a financial asset not at fair value through profit or loss, transaction costs. Trade receivables that do not contain a significant financing component or for which the Group has applied the practical expedient are measured at the transaction price determined under IFRS 15 in accordance with the policies set out for "Revenue recognition (applicable from 1 January 2018)" below.

In order for a financial asset to be classified and measured at amortised cost or fair value through other comprehensive income, it needs to give rise to cash flows that are solely payments of principal and interest ("**SPPI**") on the principal amount outstanding.

The Group's business model for managing financial assets refers to how it manages its financial assets in order to generate cash flows. The business model determines whether cash flows will result from collecting contractual cash flows, selling the financial assets, or both.

All regular way purchases and sales of financial assets are recognised on the trade date, that is, the date that the Group commits to purchase or sell the asset. Regular way purchases or sales are purchases or sales of financial assets that require delivery of assets within the period generally established by regulation or convention in the marketplace.

2.4 Summary of significant accounting policies (continued)

Investments and other financial assets (policies under IFRS 9 applicable from 1 January 2018) (continued)

Subsequent measurement

The subsequent measurement of financial assets depends on their classification as follows:

Financial assets at amortised cost (debt instruments)

The Group measures financial assets at amortised cost if both of the following conditions are met:

- The financial asset is held within a business model with the objective to hold financial assets in order to collect contractual cash flows.

- 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.

Financial assets at amortised cost are subsequently measured using the effective interest method and are subject to impairment. Gains and losses are recognised in the statement of profit or loss when the asset is derecognised, modified or impaired.

Financial assets at fair value through other comprehensive income (debt instruments)

The Group measures debt investments at fair value through other comprehensive income if both of the following conditions are met:

- The financial asset is held within a business model with the objective of both holding to collect contractual cash flows and selling.

- 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.

For debt investments at fair value through other comprehensive income, interest income, foreign exchange revaluation and impairment losses or reversals are recognised in the statement of profit or loss and computed in the same manner as for financial assets measured at amortised cost. The remaining fair value changes are recognised in other comprehensive income. Upon derecognition, the cumulative fair value change recognised in other comprehensive income is recycled to the statement of profit or loss.

2.4 Summary of significant accounting policies (continued)

Investments and other financial assets (policies under IFRS 9 applicable from 1 January 2018) (continued)

Subsequent measurement (continued)

Financial assets designated at fair value through other comprehensive income (equity investments)

Upon initial recognition, the Group can elect to classify irrevocably its equity investments as equity investments designated at fair value through other comprehensive income when they meet the definition of equity under IAS 32 *Financial Instruments: Presentation* and are not held for trading. The classification is determined on an instrument-by-instrument basis.

Gains and losses on these financial assets are never recycled to the statement of profit or loss. Dividends are recognised as other income in the statement of profit or loss when the right of payment has been established, it is probable that the economic benefits associated with the dividend will flow to the Group and the amount of the dividend can be measured reliably, except when the Group benefits from such proceeds as a recovery of part of the cost of the financial asset, in which case, such gains are recorded in other comprehensive income. Equity investments designated at fair value through other comprehensive income are not subject to impairment assessment.

Financial assets at fair value through profit or loss

Financial assets at fair value through profit or loss include financial assets held for trading, financial assets designated upon initial recognition at fair value through profit or loss, or financial assets mandatorily required to be measured at fair value. Financial assets are classified as held for trading if they are acquired for the purpose of selling or repurchasing in the near term. Derivatives, including separated embedded derivatives, are also classified as held for trading unless they are designated as effective hedging instruments. Financial assets with cash flows that are not solely payments of principal and interest are classified and measured at fair value through profit or loss, irrespective of the business model. Notwithstanding the criteria for debt instruments to be classified at amortised cost or at fair value through other comprehensive income, as described above, debt instruments may be designated at fair value through profit or loss on initial recognition if doing so eliminates, or significantly reduces, an accounting mismatch.

2.4 Summary of significant accounting policies (continued)

Investments and other financial assets (policies under IFRS 9 applicable from 1 January 2018) (continued)

Subsequent measurement (continued)

Financial assets at fair value through profit or loss (continued)

Financial assets at fair value through profit or loss are carried in the statement of financial position at fair value with net changes in fair value recognised in the statement of profit or loss.

This category includes derivative instruments and other unlisted investments. Dividends on equity investments classified as financial assets at fair value profit or loss are also recognised as other income in the statement of profit or loss when the right of payment has been established, it is probable that the economic benefits associated with the dividend will flow to the Group and the amount of the dividend can be measured reliably.

A derivative embedded in a hybrid contract, with a financial liability or non-financial host, is separated from the host and accounted for as a separate derivative if the economic characteristics and risks are not closely related to the host; a separate instrument with the same terms as the embedded derivative would meet the definition of a derivative; and the hybrid contract is not measured at fair value through profit or loss. Embedded derivatives are measured at fair value with changes in fair value recognised in the statement of profit or loss. Reassessment only occurs if there is either a change in the terms of the contract that significantly modifies the cash flows that would otherwise be required or a reclassification of a financial asset out of the fair value through profit or loss category.

A derivative embedded within a hybrid contract containing a financial asset host is not accounted for separately. The financial asset host together with the embedded derivative is required to be classified in its entirety as a financial asset at fair value through profit or loss.

2.4 Summary of significant accounting policies (continued)

Investments and other financial assets (policies under IAS 39 applicable before 1 January 2018)

Initial recognition and measurement

Financial assets are classified, at initial recognition, as financial assets at fair value through profit or loss, loans and receivables and available-for-sale financial investments, or as derivatives designated as hedging instruments in an effective hedge, as appropriate. When financial assets are recognised initially, they are measured at fair value plus transaction costs that are attributable to the acquisition of the financial assets, except in the case of financial assets recorded at fair value through profit or loss.

All regular way purchases and sales of financial assets are recognised on the trade date, that is, the date that the Group commits to purchase or sell the asset. Regular way purchases or sales are purchases or sales of financial assets that require delivery of assets within the period generally established by regulation or convention in the marketplace.

Subsequent measurement

The subsequent measurement of financial assets depends on their classification as follows:

Financial assets at fair value through profit or loss

Financial assets at fair value through profit or loss include financial assets held for trading and financial assets designated upon initial recognition as at fair value through profit or loss. Financial assets are classified as held for trading if they are acquired for the purpose of sale in the near term. Derivatives, including separated embedded derivatives, are also classified as held for trading unless they are designated as effective hedging instruments as defined by IAS 39.

Financial assets at fair value through profit or loss are carried in the statement of financial position at fair value with positive net changes in fair value presented as other income and gains and negative net changes in fair value presented as finance costs in the statement of profit or loss. These net fair value changes do not include any dividends or interest earned on these financial assets, which are recognised in accordance with the policies set out for “Revenue recognition (applicable before 1 January 2018)” below.

Financial assets designated upon initial recognition as at fair value through profit or loss are designated at the date of initial recognition and only if the criteria in IAS 39 are satisfied.

2.4 Summary of significant accounting policies (continued)

Investments and other financial assets (policies under IAS 39 applicable before 1 January 2018) (continued)

Subsequent measurement (continued)

Financial assets at fair value through profit or loss (continued)

Derivatives embedded in host contracts are accounted for as separate derivatives and recorded at fair value if their economic characteristics and risks are not closely related to those of the host contracts and the host contracts are not held for trading or designated as at fair value through profit or loss. These embedded derivatives are measured at fair value with changes in fair value recognised in the statement of profit or loss. Reassessment only occurs if there is either a change in the terms of the contract that significantly modifies the cash flows that would otherwise be required or a reclassification of a financial asset out of the fair value through profit or loss category.

Loans and receivables

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. After initial measurement, such assets are subsequently measured at amortised cost using the effective interest rate method less any allowance for impairment. Amortised cost is calculated by taking into account any discount or premium on acquisition and includes fees or costs that are an integral part of the effective interest rate. The effective interest rate amortisation is included in other income and gains in the statement of profit or loss. The loss arising from impairment is recognised in the statement of profit or loss in finance costs for loans and in other expenses for receivables.

Available-for-sale financial investments

Available-for-sale financial investments are non-derivative financial assets in listed and unlisted equity investments and debt securities. Equity investments classified as available for sale are those which are neither classified as held for trading nor designated as at fair value through profit or loss. Debt securities in this category are those which are intended to be held for an indefinite period of time and which may be sold in response to needs for liquidity or in response to changes in market conditions.

2.4 Summary of significant accounting policies (continued)

Investments and other financial assets (policies under IAS 39 applicable before 1 January 2018) (continued)

Subsequent measurement (continued)

Available-for-sale financial investments (continued)

After initial recognition, available-for-sale financial investments are subsequently measured at fair value, with unrealised gains or losses recognised as other comprehensive income in the available-for-sale investment revaluation reserve until the investment is derecognised, at which time the cumulative gain or loss is recognised in the statement of profit or loss in other income, or until the investment is determined to be impaired, when the cumulative gain or loss is reclassified from the available-for-sale investment revaluation reserve to the statement of profit or loss in other gains or losses. Interest and dividends earned whilst holding the available-for-sale financial investments are reported as interest income and dividend income, respectively and are recognised in the statement of profit or loss as other income in accordance with the policies set out for "Revenue recognition (applicable before 1 January 2018)" below.

When the fair value of unlisted equity investments cannot be reliably measured because (a) the variability in the range of reasonable fair value estimates is significant for that investment or (b) the probabilities of the various estimates within the range cannot be reasonably assessed and used in estimating fair value, such investments are stated at cost less any impairment losses.

The Group evaluates whether the ability and intention to sell its available-for-sale financial assets in the near term are still appropriate. When, in rare circumstances, the Group is unable to trade these financial assets due to inactive markets, the Group may elect to reclassify these financial assets if management has the ability and intention to hold the assets for the foreseeable future or until maturity.

For a financial asset reclassified from the available-for-sale category, the fair value carrying amount at the date of reclassification becomes its new amortised cost and any previous gain or loss on that asset that has been recognised in equity is amortised to profit or loss over the remaining life of the investment using the effective interest rate. Any difference between the new amortised cost and the maturity amount is also amortised over the remaining life of the asset using the effective interest rate. If the asset is subsequently determined to be impaired, then the amount recorded in equity is reclassified to the statement of profit or loss.

2.4 Summary of significant accounting policies (continued)

Derecognition of financial assets (policies under IFRS 9 applicable from 1 January 2018 and policies under IAS 39 applicable before 1 January 2018)

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 statement of financial position) when:

- the rights to receive cash flows from the asset have expired; or

- 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.

2.4 Summary of significant accounting policies (continued)

Impairment of financial assets (policies under IFRS 9 applicable from 1 January 2018)

The Group recognises an allowance for ECLs for all debt instruments not held at fair value through profit or loss. ECLs are based on the difference between the contractual cash flows due in accordance with the contract and all the cash flows that the Group expects to receive, discounted at an approximation of the original effective interest rate. The expected cash flows will include cash flows from the sale of collateral held or other credit enhancements that are integral to the contractual terms.

General approach

ECLs are recognised in two stages. For credit exposures for which there has not been a significant increase in credit risk since initial recognition, ECLs are provided for credit losses that result from default events that are possible within the next 12 months (a 12-month ECL). For those credit exposures for which there has been a significant increase in credit risk since initial recognition, a loss allowance is required for credit losses expected over the remaining life of the exposure, irrespective of the timing of the default (a lifetime ECL).

At each reporting date, the Group assesses whether the credit risk on a financial instrument has increased significantly since initial recognition. When making the assessment, the Group compares the risk of a default occurring on the financial instrument as at the reporting date with the risk of a default occurring on the financial instrument as at the date of initial recognition and considers reasonable and supportable information that is available without undue cost or effort, including historical and forward-looking information.

For debt investments at fair value through other comprehensive income, the Group applies the low credit risk simplification. At each reporting date, the Group evaluates whether the debt investments are considered to have low credit risk using all reasonable and supportable information that is available without undue cost or effort. In making that evaluation, the Group reassesses the external credit ratings of the debt investments. In addition, the Group considers that there has been a significant increase in credit risk when contractual payments are more than 30 days past due.

The Group considers a financial asset in default when contractual payments are 90 days past due. However, in certain cases, the Group may also consider a financial asset to be in default when internal or external information indicates that the Group is unlikely to receive the outstanding contractual amounts in full before taking into account any credit enhancements held by the Group. A financial asset is written off when there is no reasonable expectation of recovering the contractual cash flows.

2.4 Summary of significant accounting policies (continued)

Impairment of financial assets (policies under IFRS 9 applicable from 1 January 2018) (continued)

General approach (continued)

Financial assets at amortised cost are subject to impairment under the general approach and they are classified within the following stages for measurement of ECLs except for trade receivables, financial assets included in prepayments, other receivables and other assets and long-term receivables which apply the simplified approach as detailed below.

Stage 1 — Financial instruments for which credit risk has not increased significantly since initial recognition and for which the loss allowance is measured at an amount equal to 12-month ECLs

Stage 2 — Financial instruments for which credit risk has increased significantly since initial recognition but that are not credit-impaired financial assets and for which the loss allowance is measured at an amount equal to lifetime ECLs

Stage 3 — Financial assets that are credit-impaired at the reporting date (but that are not purchased or originated credit-impaired) and for which the loss allowance is measured at an amount equal to lifetime ECLs

Simplified approach

For trade receivables and certain financial assets included in prepayments, other receivables and other assets and long-term receivables that do not contain a significant financing component or when the Group applies the practical expedient of not adjusting the effect of a significant financing component, the Group applies the simplified approach in calculating ECLs. Under the simplified approach, the Group does not track changes in credit risk, but instead recognises a loss allowance based on lifetime ECLs at each reporting date. The Group has established a provision matrix that is based on its historical credit loss experience, adjusted for forward-looking factors specific to the debtors and the economic environment.

For trade receivables and certain financial assets included in prepayments, other receivables and other assets and long-term receivables that contain a significant financing component and lease receivables, the Group chooses as its accounting policy to adopt the simplified approach in calculating ECLs with policies as described above.

2.4 Summary of significant accounting policies (continued)

Impairment of financial assets (policies under IAS 39 applicable before 1 January 2018)

The Group assesses at the end of each reporting period whether there is objective evidence that a financial asset or a group of financial assets is impaired. An impairment exists if one or more events that occurred after the initial recognition of the asset have an impact on the estimated future cash flows of the financial asset or the group of financial assets that can be reliably estimated. Evidence of impairment may include indications that a debtor or a group of debtors is experiencing significant financial difficulty, default or delinquency in interest or principal payments, the probability that they will enter bankruptcy or other financial reorganisation and observable data indicating that there is a measurable decrease in the estimated future cash flows, such as changes in arrears or economic conditions that correlate with defaults.

Financial assets carried at amortised cost

For financial assets carried at amortised cost, the Group first assesses whether impairment exists individually for financial assets that are individually significant, or collectively for financial assets that are not individually significant. If the Group determines that no objective evidence of impairment exists for an individually assessed financial asset, whether significant or not, it includes the asset in a group of financial assets with similar credit risk characteristics and collectively assesses them for impairment. Assets that are individually assessed for impairment and for which an impairment loss is, or continues to be, recognised are not included in a collective assessment of impairment.

The amount of any impairment loss identified is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows (excluding future credit losses that have not yet been incurred). The present value of the estimated future cash flows is discounted at the financial asset's original effective interest rate (i.e., the effective interest rate computed at initial recognition).

The carrying amount of the asset is reduced through the use of an allowance account and the loss is recognised in the statement of profit or loss. Interest income continues to be accrued on the reduced carrying amount using the rate of interest used to discount the future cash flows for the purpose of measuring the impairment loss. Loans and receivables together with any associated allowance are written off when there is no realistic prospect of future recovery and all collateral has been realised or has been transferred to the Group.

If, in a subsequent period, the amount of the estimated impairment loss increases or decreases because of an event occurring after the impairment was recognised, the previously recognised impairment loss is increased or reduced by adjusting the allowance account. If a write-off is later recovered, the recovery is credited to other expenses in the statement of profit or loss.

2.4 Summary of significant accounting policies (continued)

Impairment of financial assets (policies under IAS 39 applicable before 1 January 2018) (continued)

Assets carried at cost

If there is objective evidence that an impairment loss has been incurred on an unquoted equity instrument that is not carried at fair value because its fair value cannot be reliably measured, or on a derivative asset that is linked to and must be settled by delivery of such an unquoted equity instrument, the amount of the loss is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows discounted at the current market rate of return for a similar financial asset. Impairment losses on these assets are not reversed.

Available-for-sale financial investments

For available-for-sale financial investments, the Group assesses at the end of each reporting period whether there is objective evidence that an investment or a group of investments is impaired.

If an available-for-sale asset is impaired, an amount comprising the difference between its cost (net of any principal payment and amortisation) and its current fair value, less any impairment loss previously recognised in the statement of profit or loss, is removed from other comprehensive income and recognised in the statement of profit or loss.

In the case of equity investments classified as available for sale, objective evidence would include a significant or prolonged decline in the fair value of an investment below its cost. "Significant" is evaluated against the original cost of the investment and "prolonged" against the period in which the fair value has been below its original cost. Where there is evidence of impairment, the cumulative loss — measured as the difference between the acquisition cost and the current fair value, less any impairment loss on that investment previously recognised in the statement of profit or loss — is removed from other comprehensive income and recognised in the statement of profit or loss. Impairment losses on equity instruments classified as available for sale are not reversed through the statement of profit or loss. Increases in their fair value after impairment are recognised directly in other comprehensive income.

The determination of what is "significant" or "prolonged" requires judgement. In making this judgement, the Group evaluates, among other factors, the duration or extent to which the fair value of an investment is less than its cost.

2.4 Summary of significant accounting policies (continued)

Impairment of financial assets (policies under IAS 39 applicable before 1 January 2018) (continued)

Available-for-sale financial investments (continued)

In the case of debt instruments classified as available for sale, impairment is assessed based on the same criteria as financial assets carried at amortised cost. However, the amount recorded for impairment is the cumulative loss measured as the difference between the amortised cost and the current fair value, less any impairment loss on that investment previously recognised in the statement of profit or loss. Future interest income continues to be accrued based on the reduced carrying amount of the asset using the rate of interest used to discount the future cash flows for the purpose of measuring the impairment loss. The interest income is recorded as part of finance income. Impairment losses on debt instruments are reversed through the statement of profit or loss if the subsequent increase in fair value of the instruments can be objectively related to an event occurring after the impairment loss was recognised in the statement of profit or loss.

Financial liabilities (policies under IFRS 9 applicable from 1 January 2018 and IAS 39 applicable before 1 January 2018)

Initial recognition and measurement

Financial liabilities are classified, at initial recognition, as financial liabilities at fair value through profit or loss, loans and borrowings, payables, or as derivatives designated as hedging instruments in an effective hedge, as appropriate.

All financial liabilities are recognised initially at fair value and, in the case of loans and borrowings and payables, net of directly attributable transaction costs.

The Group's financial liabilities include trade and bills payables, financial liabilities included in other payables and accruals, and interest-bearing bank and other borrowings.

2.4 Summary of significant accounting policies (continued)

Financial liabilities (policies under IFRS 9 applicable from 1 January 2018 and IAS 39 applicable before 1 January 2018) (continued)

Subsequent measurement

The subsequent measurement of financial liabilities depends on their classification as follows:

Loans and borrowings

After initial recognition, interest-bearing loans and borrowings are subsequently measured at amortised cost, using the effective interest rate method unless the effect of discounting would be immaterial, in which case they are stated at cost. Gains and losses are recognised in the statement of profit or loss when the liabilities are derecognised as well as through the effective interest rate amortisation process.

Amortised cost is calculated by taking into account any discount or premium on acquisition and fees or costs that are an integral part of the effective interest rate. The effective interest rate amortisation is included in finance costs in the statement of profit or loss.

Financial guarantee contracts (policies under IFRS 9 applicable from 1 January 2018)

Financial guarantee contracts issued by the Group are those contracts that require a payment to be made to reimburse the holder for a loss it incurs because the specified debtor fails to make a payment when due in accordance with the terms of a debt instrument. A financial guarantee contract is recognised initially as a liability at its fair value, adjusted for transaction costs that are directly attributable to the issuance of the guarantee. Subsequent to initial recognition, the Group measures the financial guarantee contracts at the higher of: (i) the ECL allowance determined in accordance with the policy as set out in "Impairment of financial assets (policies under IFRS 9 applicable from 1 January 2018)"; and (ii) the amount initially recognised less, when appropriate, the cumulative amount of income recognised.

Financial guarantee contracts (policies under IAS 39 applicable before 1 January 2018)

A financial guarantee contract is recognised initially as a liability at its fair value, adjusted for transaction costs that are directly attributable to the issuance of the guarantee. Subsequent to initial recognition, the Group measures the financial guarantee contract at the higher of (i) the amount of the best estimate of the expenditure required to settle the present obligation at the end of the reporting period; and (ii) the amount initially recognised less, when appropriate, cumulative amortisation.

2.4 Summary of significant accounting policies (continued)

Financial liabilities (policies under IFRS 9 applicable from 1 January 2018 and IAS 39 applicable before 1 January 2018) (continued)

Subsequent measurement (continued)

Convertible bonds

The component of convertible bonds that exhibits characteristics of a liability is recognised as a liability in the statement of financial position, net of transaction costs. On issuance of convertible bonds, the fair value of the liability component is determined using a market rate for an equivalent non-convertible bond; and this amount is carried as a long term liability on the amortised cost basis until extinguished on conversion or redemption. The remainder of the proceeds is allocated to the conversion option that is recognised and included in shareholders' equity, net of transaction costs. The carrying amount of the conversion option is not remeasured in subsequent years. Transaction costs are apportioned between the liability and equity components of the convertible bonds based on the allocation of proceeds to the liability and equity components when the instruments are first recognised.

Derecognition of financial liabilities (policies under IFRS 9 applicable from 1 January 2018 and IAS 39 applicable before 1 January 2018)

A financial liability is derecognised when the obligation under the liability is discharged or cancelled, 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, and the difference between the respective carrying amounts is recognised in the statement of profit or loss.

Offsetting of financial instruments (policies under IFRS 9 applicable from 1 January 2018 and IAS 39 applicable before 1 January 2018)

Financial assets and financial liabilities are offset and the net amount is reported in the statement of financial position if there is a currently enforceable legal right to offset the recognised amounts and there is an intention to settle on a net basis, or to realise the assets and settle the liabilities simultaneously.

2.4 Summary of significant accounting policies (continued)

Treasury shares

Own equity instruments which are reacquired and held by the Company or the Group (treasury shares) are recognised directly in equity at cost. No gain or loss is recognised in the statement of profit or loss on the purchase, sale, issue or cancellation of the Group's own equity instruments.

Inventories

Inventories are stated at the lower of cost and net realisable value. Cost is determined on the first-in, first-out basis and, in the case of work in progress and finished goods, comprises direct materials, direct labour and an appropriate proportion of overheads. Net realisable value is based on estimated selling prices less any estimated costs to be incurred to completion and disposal.

Cash and cash equivalents

For the purpose of the consolidated statement of cash flows, cash and cash equivalents comprise cash on hand and demand deposits, and short term highly liquid investments that are readily convertible into known amounts of cash, are subject to an insignificant risk of changes in value, and have a short maturity of generally within three months when acquired, less bank overdrafts which are repayable on demand and form an integral part of the Group's cash management.

For the purpose of the consolidated statement of financial position, cash and cash equivalents comprise cash on hand and at banks, including term deposits, and assets similar in nature to cash, which are not restricted as to use.

Provisions

A provision is recognised when a present obligation (legal or constructive) has arisen as a result of a past event and it is probable that a future outflow of resources will be required to settle the obligation, provided that a reliable estimate can be made of the amount of the obligation.

When the effect of discounting is material, the amount recognised for a provision is the present value at the end of the reporting period of the future expenditures expected to be required to settle the obligation. The increase in the discounted present value amount arising from the passage of time is included in finance costs in the statement of profit or loss.

2.4 Summary of significant accounting policies (continued)

Income tax

Income tax comprises current and deferred tax. Income tax relating to items recognised outside profit or loss is recognised outside profit or loss, either in other comprehensive income or directly in equity.

Current tax assets and liabilities are measured at the amount expected to be recovered from or paid to the taxation authorities, based on tax rates (and tax laws) that have been enacted or substantively enacted by the end of the reporting period, taking into consideration interpretations and practices prevailing in the countries in which the Group operates.

Deferred tax is provided, using the liability method, on all temporary differences at the end of the reporting period between the tax bases of assets and liabilities and their carrying amounts for financial reporting purposes.

Deferred tax liabilities are recognised for all taxable temporary differences, except:

- when the deferred tax liability arises from the initial recognition of goodwill or an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss; and

- in respect of taxable temporary differences associated with investments in subsidiaries, associates and joint ventures, when the timing of the reversal of the temporary differences can be controlled and it is probable that the temporary differences will not reverse in the foreseeable future.

Deferred tax assets are recognised for all deductible temporary differences, the carryforward of unused tax credits and any unused tax losses. Deferred tax assets are recognised to the extent that it is probable that taxable profit will be available against which the deductible temporary differences, the carryforward of unused tax credits and unused tax losses can be utilised, except:

- when the deferred tax asset relating to the deductible temporary differences arises from the initial recognition of an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss; and

- in respect of deductible temporary differences associated with investments in subsidiaries, associates and joint ventures, deferred tax assets are only recognised to the extent that it is probable that the temporary differences will reverse in the foreseeable future and taxable profit will be available against which the temporary differences can be utilised.

2.4 Summary of significant accounting policies (continued)

Income tax (continued)

The carrying amount of deferred tax assets is reviewed at the end of each reporting period and reduced to the extent that it is no longer probable that sufficient taxable profit will be available to allow all or part of the deferred tax asset to be utilised. Unrecognised deferred tax assets are reassessed at the end of each reporting period and are recognised to the extent that it has become probable that sufficient taxable profit will be available to allow all or part of the deferred tax asset to be recovered.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply to the period when the asset is realised or the liability is settled, based on tax rates (and tax laws) that have been enacted or substantively enacted by the end of the reporting period.

Deferred tax assets and deferred tax liabilities are offset if and only if the Group has a legally enforceable right to set off current tax assets and current tax liabilities and the deferred tax assets and deferred tax liabilities relate to income taxes levied by the same taxation authority on either the same taxable entity or different taxable entities which intend either to settle current tax liabilities and assets on a net basis, or to realise the assets and settle the liabilities simultaneously, in each future period in which significant amounts of deferred tax liabilities or assets are expected to be settled or recovered.

Government grants

Government grants are recognised at their fair value where there is reasonable assurance that the grant will be received and all attaching conditions will be complied with. When the grant relates to an expense item, it is recognised as income on a systematic basis over the periods that the costs, which it is intended to compensate, are expensed.

Where the grant relates to an asset, the fair value is credited to a deferred income account and is released to the statement of profit or loss over the expected useful life of the relevant asset by equal annual instalments or deducted from the carrying amount of the asset and released to the statement of profit or loss by way of a reduced depreciation charge.

Where the Group receives grants of non-monetary assets, the grants are recorded at the fair value of the non-monetary assets and released to the statement of profit or loss over the expected useful lives of the relevant assets by equal annual instalments.

Where the Group receives government loans granted with no or at a below-market rate of interest for the construction of a qualifying asset, the initial carrying amount of the government loans is determined using the effective interest rate method, as further explained in the accounting policy for “Financial liabilities” above. The benefit of the government loans granted with no or at a below-market rate of interest, which is the difference between the initial carrying value of the loans and the proceeds received, is treated as a government grant and released to the statement of profit or loss over the expected useful life of the relevant asset by equal annual instalments.

2.4 Summary of significant accounting policies (continued)

Revenue recognition (applicable from 1 January 2018)

Revenue from contracts with customers

Revenue from contracts with customers is recognised when control of goods or services is transferred to the customers at an amount that reflects the consideration to which the Group expects to be entitled in exchange for those goods or services.

When the consideration in a contract includes a variable amount, the amount of consideration is estimated to which the Group will be entitled in exchange for transferring the goods or services to the customer. The variable consideration is estimated at contract inception and constrained until it is highly probable that a significant revenue reversal in the amount of cumulative revenue recognised will not occur when the associated uncertainty with the variable consideration is subsequently resolved.

When the contract contains a financing component which provides the customer a significant benefit of financing the transfer of goods or services to the customer for more than one year, revenue is measured at the present value of the amount receivable, discounted using the discount rate that would be reflected in a separate financing transaction between the Group and the customer at contract inception. When the contract contains a financing component which provides the Group a significant financial benefit for more than one year, revenue recognised under the contract includes the interest expense accreted on the contract liability under the effective interest method. For a contract where the period between the payment by the customer and the transfer of the promised goods or services is one year or less, the transaction price is not adjusted for the effects of a significant financing component, using the practical expedient in IFRS 15.

(a) Sale of biopharmaceutical products

Revenue from the sale of biopharmaceutical products is recognised at the point in time when control of the asset is transferred to the customer, generally upon receipt of the biopharmaceutical products by customers.

Some contracts for the sale of biopharmaceutical products provide customers with rights of return and trade discounts. The rights of return and trade discounts give rise to variable consideration.

(i) Rights of return

For contracts which provide a customer with a right to return the goods within a specified period, the expected value method is used to estimate the goods that will not be returned because this method best predicts the amount of variable consideration to which the Group will be entitled. The requirements in IFRS 15 on constraining estimates of variable consideration are applied in order to determine the amount of variable consideration that can be included in the transaction price. For goods that are expected to be returned, instead of revenue, a refund liability is recognised. A right-of-return asset (and the corresponding adjustment to cost of sales) is also recognised for the right to recover products from a customer.

2.4 Summary of significant accounting policies (continued)

Revenue recognition (applicable from 1 January 2018) (continued)

Revenue from contracts with customers (continued)

(a) Sale of biopharmaceutical products (continued)

(ii) Trade discounts

Retrospective trade discounts may be provided to certain customers once they paid timely. Trade discounts are offset against amounts payable by the customer. To estimate the variable consideration for the expected future trade discounts, the most likely amount method is used for contracts with the expected value method for contracts. The selected method that best predicts the amount of variable consideration is primarily driven by the credit of customers. The requirements on constraining estimates of variable consideration are applied and a refund liability for the expected future rebates is recognised.

(b) Contracts for services

Revenue from the provision of technical services is recognised over time, using an input method to measure progress towards complete satisfaction of the service. The input method recognises revenue based on the proportion of the actual costs incurred relative to the estimated total costs for satisfaction of the services.

Other income

Interest income is recognised on an accrual basis using the effective interest method by applying the rate that exactly discounts the estimated future cash receipts over the expected life of the financial instrument or a shorter period, when appropriate, to the net carrying amount of the financial asset.

Dividend income is recognised when the shareholders' right to receive payment has been established, it is probable that the economic benefits associated with the dividend will flow to the Group and the amount of the dividend can be measured reliably.

2.4 Summary of significant accounting policies (continued)

Revenue recognition (applicable before 1 January 2018)

Revenue is recognised when it is probable that the economic benefits will flow to the Group and when the revenue can be measured reliably, on the following bases:

(a) from the sale of biopharmaceuticals, when the significant risks and rewards of ownership have been transferred to the buyer, provided that the Group maintains neither managerial involvement to the degree usually associated with ownership, nor effective control over the goods sold;

(b) from the rendering of services, on the percentage of completion basis, as further explained in the accounting policy for "Contracts for services (applicable before 1 January 2018)" below;

(c) interest income, on an accrual basis using the effective interest method by applying the rate that exactly discounts the estimated future cash receipts over the expected life of the financial instrument or a shorter period, when appropriate, to the net carrying amount of the financial asset; and

(d) dividend income, when the shareholders' right to receive payment has been established.

Contract assets (applicable from 1 January 2018)

A contract asset is the right to consideration in exchange for goods or services transferred to the customer. If the Group performs by transferring goods or services to a customer before the customer pays consideration or before payment is due, a contract asset is recognised for the earned consideration that is conditional.

Contract liabilities (applicable from 1 January 2018)

A contract liability is the obligation to transfer goods or services to a customer for which the Group has received a consideration (or an amount of consideration that is due) from the customer. If a customer pays the consideration before the Group transfers goods or services to the customer, a contract liability is recognised when the payment is made or the payment is due (whichever is earlier). Contract liabilities are recognised as revenue when the Group performs under the contract.

2.4 Summary of significant accounting policies (continued)

Contract costs (applicable from 1 January 2018)

Other than the costs which are capitalised as inventories, property, plant and equipment and intangible assets, costs incurred to fulfil a contract with a customer are capitalised as an asset if all of the following criteria are met:

(a) The costs relate directly to a contract or to an anticipated contract that the entity can specifically identify.

(b) The costs generate or enhance resources of the entity that will be used in satisfying (or in continuing to satisfy) performance obligations in the future.

(c) The costs are expected to be recovered.

The capitalised contract costs are amortised and charged to the statement of profit or loss on a systematic basis that is consistent with the pattern of the revenue to which the asset related is recognised. Other contract costs are expensed as incurred.

Right-of-return assets (applicable from 1 January 2018)

A right-of-return asset represents the Group's right to recover the goods expected to be returned by customers. The asset is measured at the former carrying amount of the goods to be returned, less any expected costs to recover the goods, including any potential decreases in the value of the returned goods. The Group updates the measurement of the asset recorded for any revisions to its expected level of returns, as well as any additional decreases in the value of the returned goods.

Refund liabilities (applicable from 1 January 2018)

A refund liability is the obligation to refund some or all of the consideration received (or receivable) from the customer and is measured at the amount the Group ultimately expects it will have to return to the customer. The Group updates its estimates of refund liabilities (and the corresponding change in the transaction price) at the end of each reporting period.

2.4 Summary of significant accounting policies (continued)

Contracts for services (applicable before 1 January 2018)

Contract revenue on the rendering of services comprises the agreed contract amount. Costs of rendering services comprise labour and other costs of personnel directly engaged in providing the services and attributable overheads.

Revenue from the rendering of services is recognised based on the percentage of completion of the transaction, provided that the revenue, the costs incurred and the estimated costs to completion can be measured reliably. The percentage of completion is established by reference to the costs incurred to date as compared to the total costs to be incurred under the transaction. Where the outcome of a contract cannot be measured reliably, revenue is recognised only to the extent that the expenses incurred are eligible to be recovered.

Provision is made for foreseeable losses as soon as they are anticipated by management. Where contract costs incurred to date plus recognised profits less recognised losses exceed progress billings, the surplus is treated as an amount due from contract customers. Where progress billings exceed contract costs incurred to date plus recognised profits less recognised losses, the surplus is treated as an amount due to contract customers.

Share-based payments

The Company operates a share option scheme for the purpose of providing incentives and rewards to eligible participants who contribute to the success of the Group's operations. Employees (including directors) of the Group receive remuneration in the form of share-based payments, whereby employees render services as consideration for equity instruments ("**equity-settled transactions**").

The cost of equity-settled transactions with employees for grants is measured by reference to the fair value of the equity instruments at the date at which they are granted. The fair value is determined by an external valuer using a binomial model, further details of which are given in note 35 to the financial statements.

The cost of equity-settled transactions is recognised in employee benefit expense, together with a corresponding increase in equity, over the period in which the performance and/or service conditions are fulfilled. The cumulative expense recognised for equity-settled transactions at the end of each reporting period until the vesting date reflects the extent to which the vesting period has expired and the Group's best estimate of the number of equity instruments that will ultimately vest. The charge or credit to the statement of profit or loss for a period represents the movement in the cumulative expense recognised as at the beginning and end of that period.

2.4 Summary of significant accounting policies (continued)

Share-based payments (continued)

Service and non-market performance conditions are not taken into account when determining the grant date fair value of awards, but the likelihood of the conditions being met is assessed as part of the Group's best estimate of the number of equity instruments that will ultimately vest. Market performance conditions are reflected within the grant date fair value. Any other conditions attached to an award, but without an associated service requirement, are considered to be non-vesting conditions. Non-vesting conditions are reflected in the fair value of an award and lead to an immediate expensing of an award unless there are also service and/or performance conditions.

For awards that do not ultimately vest because non-market performance and/or service conditions have not been met, no expense is recognised. Where awards include a market or non-vesting condition, the transactions are treated as vesting irrespective of whether the market or non-vesting condition is satisfied, provided that all other performance and/or service conditions are satisfied.

Where the terms of an equity-settled award are modified, as a minimum an expense is recognised as if the terms had not been modified, if the original terms of the award are met. In addition, an expense is recognised for any modification that increases the total fair value of the share-based payments, or is otherwise beneficial to the employee as measured at the date of modification.

Where an equity-settled award is cancelled, it is treated as if it had vested on the date of cancellation, and any expense not yet recognised for the award is recognised immediately. This includes any award where non-vesting conditions within the control of either the Group or the employee are not met. However, if a new award is substituted for the cancelled award, and is designated as a replacement award on the date that it is granted, the cancelled and new awards are treated as if they were a modification of the original award, as described in the previous paragraph.

The dilutive effect of outstanding options is reflected as additional share dilution in the computation of earnings per share.

The cost of cash-settled transactions is measured initially at fair value at the grant date using the Black-Scholes formula, taking into account the terms and conditions upon which the instruments were granted. The fair value is expensed over the period until the vesting date with recognition of a corresponding liability. The cumulative expense recognised for cash-settled transactions at the end of each reporting period until the vesting date reflects the extent to which the vesting period has expired and the Group's best estimate of the number of awards that will ultimately vest. The liability is measured at the end of each reporting period up to and including the settlement date, with changes in fair value recognised in the statement of profit or loss.

2.4 Summary of significant accounting policies (continued)

Other employee benefits

Defined benefit plan

The Group operates a defined benefit pension plan which requires contributions to be made to a separately administered fund. The benefits are unfunded. The cost of providing benefits under the defined benefit plan is determined using the projected unit credit actuarial valuation method.

Remeasurements arising from the defined benefit pension plan, comprising actuarial gains and losses, the effect of the asset ceiling (excluding amounts included in net interest on the net defined benefit liability) and the return on plan assets (excluding amounts included in net interest on the net defined benefit liability), are recognised immediately in the consolidated statement of financial position with a corresponding debit or credit to retained profits through other comprehensive income in the period in which they occur. Remeasurements are not reclassified to profit or loss in subsequent periods.

Past service costs are recognised in profit or loss at the earlier of:

- the date of the plan amendment or curtailment; and
- the date that the Group recognises restructuring-related costs

Net interest is calculated by applying the discount rate to the net defined benefit liability or asset. The Group recognises the following changes in the net defined benefit obligation under “cost of sales” and “administrative expenses” in the consolidated statement of profit or loss by function:

- service costs comprising current service costs, past-service costs, gains and losses on curtailments and non-routine settlements
- net interest expense or income

Pension scheme

The Group’s subsidiaries operating in Mainland China participate in a central defined contribution retirement benefit plan managed by the local municipal government in the locations in which they operate. Contributions are made based on a percentage of the companies’ payroll costs and are charged to the statement of profit or loss as they become payable in accordance with the rules of the central defined contribution retirement benefit plan.

2.4 Summary of significant accounting policies (continued)

Other employee benefits (continued)

Termination benefits

Termination benefits are recognised at the earlier of when the Group can no longer withdraw the offer of those benefits and when the Group recognises restructuring costs involving the payment of termination benefits.

Borrowing costs

Borrowing costs directly attributable to the acquisition, construction or production of qualifying assets, i.e., assets that necessarily take a substantial period of time to get ready for their intended use or sale, are capitalised as part of the cost of those assets. The capitalisation of such borrowing costs ceases when the assets are substantially 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 capitalised. All other borrowing costs are expensed in the period in which they are incurred. Borrowing costs consist of interest and other costs that an entity incurs in connection with the borrowing of funds.

Dividends

Final dividends are recognised as a liability when they are approved by the shareholders in a general meeting. Proposed final dividends are disclosed in the notes to the financial statements.

Interim dividends are simultaneously proposed and declared, because the Company's memorandum and articles of association grant the directors the authority to declare interim dividends. Consequently, interim dividends are recognised immediately as a liability when they are proposed and declared.

Foreign currencies

These financial statements are presented in RMB. Each entity in the Group determines its own functional currency and items included in the financial statements of each entity are measured using that functional currency. Foreign currency transactions recorded by the entities in the Group are initially recorded using their respective functional currency rates prevailing at the dates of the transactions. Monetary assets and liabilities denominated in foreign currencies are translated at the functional currency rates of exchange ruling at the end of the reporting period. Differences arising on settlement or translation of monetary items are recognised in the statement of profit or loss.

2.4 Summary of significant accounting policies (continued)

Foreign currencies (continued)

Differences arising on settlement or translation of monetary items are recognised in the statement of profit or loss with the exception of monetary items that are designated as part of the hedge of the Group's net investment of a foreign operation. These are recognised in other comprehensive income until the net investment is disposed of, at which time the cumulative amount is reclassified to the statement of profit or loss. Tax charges and credits attributable to exchange differences on those monetary items are also recorded in other comprehensive income.

Non-monetary items that are measured in terms of historical cost in a foreign currency are translated using the exchange rates at the dates of the initial transactions. Non-monetary items measured at fair value in a foreign currency are translated using the exchange rates at the date when the fair value was measured. The gain or loss arising on translation of a non-monetary item measured at fair value is treated in line with the recognition of the gain or loss on change in fair value of the item (i.e., translation difference on the item whose fair value gain or loss is recognised in other comprehensive income or profit or loss is also recognised in other comprehensive income or profit or loss, respectively).

In determining the exchange rate on initial recognition of the related asset, expense or income on the derecognition of a non-monetary asset or non-monetary liability relating to an advance consideration, the date of initial transaction is the date on which the Group initially recognises the non-monetary asset or non-monetary liability arising from the advance consideration. If there are multiple payments or receipts in advance, the Group determines the transaction date for each payment or receipt of the advance consideration.

The functional currencies of certain overseas subsidiaries and associates are currencies other than the RMB. As at the end of the reporting period, the assets and liabilities of these entities are translated into RMB at the exchange rates prevailing at the end of the reporting period and their statements of profit or loss are translated into RMB at the weighted average exchange rates for the year.

The resulting exchange differences are recognised in other comprehensive income and accumulated in the exchange fluctuation reserve. On disposal of a foreign operation, the component of other comprehensive income relating to that particular foreign operation is recognised in the statement of profit or loss.

Any goodwill arising on the acquisition of a foreign operation and any fair value adjustments to the carrying amounts of assets and liabilities arising on acquisition are treated as assets and liabilities of the foreign operation and translated at the closing rate.

For the purpose of the consolidated statement of cash flows, the cash flows of overseas subsidiaries are translated into RMB at the exchange rates ruling at the dates of the cash flows. Frequently recurring cash flows of overseas subsidiaries which arise throughout the year are translated into RMB at the weighted average exchange rates for the year.

3. Significant accounting judgements and estimates

The preparation of the Group's financial statements requires management to make judgements, estimates and assumptions that affect the reported amounts of revenues, expenses, assets and liabilities, and their accompanying disclosures, and the disclosure of contingent liabilities. Uncertainty about these assumptions and estimates could result in outcomes that could require a material adjustment to the carrying amounts of the assets or liabilities affected in the future.

Judgements

In the process of applying the Group's accounting policies, management has made the following judgements, apart from those involving estimations, which have the most significant effect on the amounts recognised in the financial statements:

Revenue from contracts with customers

The Group applied the following judgements that significantly affect the determination of the amount and timing of revenue from contracts with customers:

- Determining the method to estimate variable consideration and assessing the constraint for the sale of biopharmaceutical products.

  Certain contracts for the sale of biopharmaceutical products include a right of return and trade discounts that give rise to variable consideration. In estimating the variable consideration, the Group is required to use either the expected value method or the most likely amount method based on which method better predicts the amount of consideration to which it will be entitled.

  The Group determined that the expected value method is the appropriate method to use in estimating the variable consideration for the sale of biopharmaceutical products with rights of return, given the large number of customer contracts that have similar characteristics. In estimating the variable consideration for the sale of biopharmaceutical products with trade discounts, the Group determined that using a combination of the most likely amount method and the expected value method is appropriate. The selected method that better predicts the amount of variable consideration related to trade discounts is primarily driven by the credit of customers contained in the contract.

  Before including any amount of variable consideration in the transaction price, the Group considers whether the amount of variable consideration is constrained. The Group determined that the estimates of variable consideration are not constrained based on its historical experience, business forecast and the current economic conditions. In addition, the uncertainty on the variable consideration will be resolved within a short time frame.

3. Significant accounting judgements and estimates (continued)

Judgements (continued)

Tax provisions

Determining tax provisions involves judgement on the future tax treatment of certain transactions. The Group carefully evaluates tax implications of transactions, and tax provisions are set up accordingly. The tax treatment of such transactions is assessed periodically to take into account all the changes in the tax legislation and practices.

Determination of control over certain entity

The Group considers that it has no control over certain entity even through it has more than 50% of the voting rights. Based on the assessment following the basis of consolidation and accounting policies set out in note 2.1 and 2.4 respectively, the Group has not consolidated certain entity that it has no control. For the investment that the Group has significant influence, it is accounted for as an associate in accordance with IAS 28 *Investment in Associates and Joint Ventures*.

Estimation uncertainty

The key assumptions concerning the future and other key sources of estimation uncertainty at the end of the reporting period, that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year, are described below.

Variable consideration for returns and trade discounts

The Group estimates variable consideration to be included in the transaction price for the sale of biopharmaceutical products with rights of return and trade discounts.

The Group developed a statistical model for forecasting sales returns. The model used the historical return data of each product to come up with expected return percentages. These percentages are applied to determine the expected value of the variable consideration. Any significant changes in experience as compared to historical return pattern will impact the expected return percentages estimated by the Group.

Impairment of goodwill

The Group determines whether goodwill is impaired at least on an annual basis. This requires an estimation of the value in use of the cash-generating units to which the goodwill is allocated. Estimating the value in use requires the Group to make an estimate of the expected future cash flows from the cash-generating units and also to choose a suitable discount rate in order to calculate the present value of those cash flows. The carrying amount of goodwill at 31 December 2018 was approximately RMB4,089,064,000 (2017: RMB3,923,598,000). Further details are given in note 16 to the financial statements.

3. Significant accounting judgements and estimates (continued)

Estimation uncertainty (continued)

Provision for expected credit losses on trade receivables, prepayments, other receivables and other assets and long-term receivables

The Group uses a provision matrix to calculate ECLs for trade receivables, prepayments, other receivables and other assets and long-term receivables. The provision rates are based on ageing for groupings of various customer segments that have similar loss patterns (i.e., by customer type and rating).

The provision matrix is initially based on the Group's historical observed default rates. The Group will calibrate the matrix to adjust the historical credit loss experience with forward-looking information. For instance, if forecast economic conditions (i.e., gross domestic products) are expected to deteriorate over the next year which can lead to an increased number of defaults in the manufacturing sector, the historical default rates are adjusted. At each reporting date, the historical observed default rates are updated and changes in the forward-looking estimates are analysed.

The assessment of the correlation among historical observed default rates, forecast economic conditions and ECLs is a significant estimate. The amount of ECLs is sensitive to changes in circumstances and forecast economic conditions. The Group's historical credit loss experience and forecast of economic conditions may also not be representative of customer's actual default in the future. The information about the ECLs on the Group's trade receivables is disclosed in note 24 to the financial statements.

Impairment of non-financial assets (other than goodwill)

The Group assesses whether there are any indicators of impairment for all non-financial assets at the end of each reporting period. Indefinite life intangible assets are tested for impairment annually and at other times when such an indicator exists. Other non-financial assets are tested for impairment when there are indicators that the carrying amounts may not be recoverable. An impairment exists when the carrying value of an asset or a cash-generating unit exceeds its recoverable amount, which is the higher of its fair value less costs of disposal and its value in use. The calculation of the fair value less costs of disposal is based on available data from binding sales transactions in an arm's length transaction of similar assets or observable market prices less incremental costs for disposing of the asset. When value in use calculations are undertaken, management must estimate the expected future cash flows from the asset or cash-generating unit and choose a suitable discount rate in order to calculate the present value of those cash flows.

3. Significant accounting judgements and estimates (continued)

Estimation uncertainty (continued)

Deferred tax assets

Deferred tax assets are recognised for unused tax losses to the extent that it is probable that taxable profit will be available against which the losses can be utilised. Significant management judgement is required to determine the amount of deferred tax assets that can be recognised, based upon the likely timing and level of future taxable profits together with future tax planning strategies. Further details are contained in note 22 to the financial statements.

Fair value of unlisted equity investments

The unlisted equity investments have been valued based on a market-based valuation technique as detailed in note 45 to the financial statements. The valuation requires the Group to determine the comparable public companies (peers) and select the price multiple. In addition, the Group makes estimates about the discount for illiquidity. The Group classifies the fair value of these investments as Level 3. The fair value of the unlisted equity investments at 31 December 2018 was RMB313,246,000 (2017: RMB48,333,000). Further details are included in note 20 to the financial statements.

Impairment of available-for-sale investments

Before 1 January 2018, the Group classified certain assets as available for sale and recognised movements of their fair values in equity. When the fair value declined, management made assumptions about the decline in value to determine whether there was an impairment that should be recognised in the statement of profit or loss. The carrying amount of available-for-sale assets as at 31 December 2017 was RMB752,897,000.

Development costs

Development costs are capitalised in accordance with the accounting policy for research and development costs in note 2.4 to the financial statements. Determining the amounts to be capitalised requires management to make assumptions regarding the expected future cash generation of the assets, discount rates to be applied and the expected period of benefits. At 31 December 2018, the best estimate of the carrying amount of capitalised development costs was RMB138,481,000 (2017: RMB124,636,000).

3. Significant accounting judgements and estimates (continued)

Estimation uncertainty (continued)

Estimation of inventory provision

The Group recognises a provision for inventories when the cost of inventories exceeds the net realisable value. The assessment of inventory provision requires management estimates on the future selling price and future cost to be incurred of the inventories. Where the actual outcome or expectation in future is different from the original estimate, such differences will impact on the carrying value of inventories and provision charge/write-back of provision. The Group also reviews the condition of the inventories of the Group and makes provision for obsolete inventory items identified that were no longer suitable for sale.

Share-based payments

The Group measures the cost of equity-settled transactions with employees by reference to the fair value of the equity instruments at the date at which they are granted. Estimating fair value requires determining the most appropriate valuation model for a grant of equity instruments, which is dependent on the terms and conditions of the grant. This also requires determining the most appropriate inputs to the valuation model including the expected life of the option, volatility and dividend yield and making assumptions about them. Details of share-based payments are contained in note 35 to the financial statements.

Useful lives, residual values and depreciation of property, plant and equipment

The Group determines the estimated useful lives and related depreciation charges for the Group's property, plant and equipment. This estimate is based on the historical experience of the actual useful lives of property, plant and equipment of similar nature and functions. The Group will revise the depreciation charges where useful lives are different to those previously estimated, or it will write off or write down technically obsolete or non-strategic assets that have been abandoned or sold. Actual economic lives may differ from estimated useful lives; and actual residual values may differ from estimated residual values. Periodic review could result in a change in depreciable lives and residual values and therefore depreciation expenses in the future periods.

4. Operating segment information

The Group has only one operating segment, which is the development, production, marketing and sale of biopharmaceutical products.

Geographical information

(a) Revenue from external customers

	2018 RMB'000	2017 RMB'000
Mainland China	**4,430,024**	3,597,340
Others	**153,845**	136,994
	4,583,869	3,734,334

The revenue information above is based on the locations of the customers.

(b) Non-current assets

	2018 RMB'000	2017 RMB'000
Mainland China	**6,817,104**	6,513,978
Others	**2,158,612**	1,802,709
	8,975,716	8,316,687

The non-current asset information above is based on the locations of the assets and excludes financial instruments and deferred tax assets.

Information about major customers

The Group's customer base is diversified and no revenue from transactions with a significant customer amounted of 10% or more of the Group's total revenue during the year.

5. Revenue, other income and gains

An analysis of revenue, other income and gains is as follows:

	2018	2017
	RMB'000	RMB'000
Revenue from contracts with customers		
Sale of biopharmaceuticals	**4,569,565**	3,734,334
Technical service	**14,304**	—
	4,583,869	3,734,334

Revenue from contracts with customers

(i) Disaggregated revenue information

For the year ended 31 December 2018

	RMB'000
Type of goods or services	
Sale of biopharmaceuticals	**4,569,565**
Technical service	**14,304**
Total revenue from contracts with customers	**4,583,869**
Geographical markets	
Mainland China	**4,430,024**
Others	**153,845**
Total revenue from contracts with customers	**4,583,869**
Timing of revenue recognition	
Goods transferred at a point in time	**4,569,565**
Services transferred over time	**14,304**
Total revenue from contracts with customers	**4,583,869**

5. Revenue, other income and gains (continued)

Revenue from contracts with customers (continued)

(i) Disaggregated revenue information (continued)

The following table shows the amounts of revenue recognised in the current reporting period that were included in the contract liabilities at the beginning of the reporting period:

Revenue recognised that was included in contract liabilities at the beginning of the reporting period:

	2018 RMB'000
Sale of biopharmaceuticals	76,854
Technical service	—
	76,854

(ii) Performance obligations

Information about the Group's performance obligations is summarised below:

Sale of biopharmaceuticals

The performance obligation is satisfied upon receipt of the biopharmaceutical products by customers and payment is generally due within 60 to 90 days from reception, except for new customers, where payment in advance is normally required. Some contracts provide customers with a right of return and trade discounts which give rise to variable consideration subject to constraint.

Technical service

The performance obligation is satisfied over time as services are rendered and payment is generally due upon completion of milestones and customer acceptance.

The transaction prices allocated to the remaining performance obligations (unsatisfied or partially unsatisfied) as at 31 December 2018 are as follows:

	RMB'000
Within one year	6,485
More than one year	6,710
	13,195

5. Revenue, other income and gains (continued)

Revenue from contracts with customers (continued)

(ii) Performance obligations (continued)

Technical service (continued)

All the remaining performance obligations are related to technical service, and are expected to be recognised within two years. The amounts disclosed above do not include variable consideration which is constrained.

	2018 RMB'000	2017 RMB'000
Other income		
Government grants related to		
— Assets (a)	**35,350**	24,744
— Income (b)	**26,786**	27,346
Interest income	**64,771**	21,769
Licensing income	**1,397**	—
Technical service income	**—**	9,121
Others	**16,396**	9,431
	144,700	92,411
Gains		
Gain on reclassification from investment in an associate to equity investment designated at fair value through other comprehensive income (c)	**201,324**	—
Gain on disposal of an investment in an associate	**—**	103,382
Foreign exchange differences, net	**83,786**	—
	285,110	103,382
	429,810	195,793

Notes:

(a) The Group has received certain government grants to purchase items of property, plant and equipment. The grants are initially recorded as deferred income and are amortised against the depreciation charge of the underlying property, plant and equipment in accordance with the assets' estimated useful lives (note 30).

(b) The government grants have been received for the Group's contribution to the development of the local pharmaceutical industry. There are no unfulfilled conditions or contingencies attaching to these grants.

(c) On 13 July 2018, Ascentage Pharma Group International ("**Ascentage International**") completed reorganization. Ascentage Jiangsu Pharmaceutical Group Co., Ltd. ("**Ascentage Jiangsu**") became a 100% subsidiary of Ascentage International. After reorganization, the Group no longer holds equity in Ascentage Jiangsu, and holds 10,140,375 preferred shares of Ascentage International which accounts for 4.89% of its total equity.

On 6 July 2018, the Group withdrew from the board of directors and had no significant impact on Ascentage International. In accordance with IFRS 9, the investment in Ascentage International was remeasured from investment in an associate to equity investment designated at fair value through other comprehensive income, and recognised a gain upon reclassification of RMB201,324,000.

6. Profit before tax

The Group's profit before tax is arrived at after charging/(crediting):

	Notes	2018 RMB'000	2017 RMB'000
Cost of inventories sold		**877,255**	676,235
Depreciation of items of property, plant and equipment	14	**165,248**	128,453
Amortisation of other intangible assets		**148,016**	115,242
Recognition of prepaid land lease payments	15	**8,480**	7,901
Amortisation of long-term deferred expenditures		**1,958**	3,622
Operating lease expenses		**9,137**	11,014
Auditor's remuneration		**7,813**	8,560
Employee benefit expenses (excluding directors' and chief executive's remuneration (note 8)):			
Wages, salaries and staff welfare		**878,758**	681,563
Equity-settled compensation expenses		**15,756**	18,324
Pension scheme contributions		**68,384**	52,284
Social welfare and other costs		**91,218**	68,050
		1,054,116	820,221
Other expenses and losses:			
Research and development costs		**362,706**	257,310
Donation		**36,224**	23,385
Foreign exchange differences, net		**—**	22,166
Loss on disposal of items of property, plant and equipment		**10,054**	14,257
Impairment of long-term receivables	21	**8,095**	—
Impairment of trade receivables	24	**36,622**	15,386
Impairment of other receivables	25	**23,299**	(485)
Fair value loss on a derivative financial instrument		**1,323**	1,177
Technical service costs		**—**	8,486
Loss on disposal of an investment in a joint venture		**—**	134
Others		**8,045**	6,459
		486,368	348,275

7. Finance costs

An analysis of finance costs is as follows:

	2018 RMB'000	2017 RMB'000
Interest on bank borrowings	**65,609**	109,959
Interest on convertible bonds	**72,773**	31,391
	138,382	141,350

8. Directors' and chief executive's remuneration

Directors' and chief executive's remuneration for the year, disclosed pursuant to the Listing Rules, section 383(1)(a), (b), (c) and (f) of the Hong Kong Companies Ordinance and Part 2 of the Companies (Disclosure of Information about Benefits of Directors) Regulation, is as follows:

	2018 RMB'000	2017 RMB'000
Fees	**11,035**	8,159
Other emoluments:		
Salaries, allowances, bonuses and other benefits	**2,183**	2,105
Equity-settled compensation expenses	**1,731**	2,788
Pension scheme contributions	**708**	642
	15,657	13,694

On 2 February 2017, certain directors were granted share options, in respect of their services to the Group, under the share option scheme of the Company, further details of which are set out in note 35 to the financial statements. The fair value of such options, which has been recognised in the statement of profit or loss over the vesting period, was determined as at the date of grant and the amount included in the financial statements for the current year is included in the above directors' and chief executive's remuneration disclosures.

8. Directors' and chief executive's remuneration (continued)

(a) Independent non-executive directors

The fees paid to independent non-executive directors during the year were as follows:

	2018 RMB'000	2017 RMB'000
Mr. David Ross Parkinson	**263**	260
Mr. Jun Ma	**263**	260
Mr. Tianruo Pu	**263**	260
	789	780

There were no other emoluments payable to the independent non-executive directors during the year (2017: Nil).

(b) Executive directors, non-executive directors and the chief executive

	Fees RMB'000	Salaries, allowances, bonuses and other benefits RMB'000	Equity-settled compensation expenses RMB'000	Pension scheme contributions RMB'000	Total RMB'000
2018					
Chief executive					
Dr. Jing Lou*	**5,147**	**432**	**577**	**294**	**6,450**
Executive directors					
Mr. Bo Tan	**3,898**	**482**	**577**	**200**	**5,157**
Ms. Dongmei Su	**515**	**824**	**577**	**156**	**2,072**
Mr. Bin Huang	**686**	**445**	**–**	**58**	**1,189**
Non-executive directors					
Mr. Dong Liu	**–**	**–**	**–**	**–**	**–**
Mr. Dasong Wang**	**–**	**–**	**–**	**–**	**–**
	10,246	**2,183**	**1,731**	**708**	**14,868**

8. Directors' and chief executive's remuneration (continued)

(b) Executive directors, non-executive directors and the chief executive (continued)

	Fees RMB'000	Salaries, allowances, bonuses and other benefits RMB'000	Equity-settled compensation expenses RMB'000	Pension scheme contributions RMB'000	Total RMB'000
2017					
Chief executive					
Dr. Jing Lou*	4,051	432	697	273	5,453
Executive directors					
Mr. Bo Tan	2,147	481	697	186	3,511
Ms. Dongmei Su	506	712	697	93	2,008
Mr. Bin Huang	675	480	697	90	1,942
Non-executive directors					
Mr. Dong Liu	—	—	—	—	—
Mr. Dong Lv**	—	—	—	—	—
Mr. Dasong Wang**	—	—	—	—	—
	7,379	2,105	2,788	642	12,914

* Dr. Jing Lou who acts as the chief executive and the president of the Company is also an executive director of the Company.

** Mr. Dong Lv retired on 30 June 2017. Mr. Dasong Wang was appointed on 30 June 2017.

There was no arrangement under which a director or the chief executive waived or agreed to waive any remuneration during the year.

9. Five highest paid employees

The five highest paid employees during the year included one director and the chief executive (2017: one director and the chief executive), details of whose remuneration are set out in note 8 above. Details of the remuneration for the year of the remaining three (2017: three) highest paid employees who are neither directors nor chief executives of the Company are as follows:

	2018	2017
	RMB'000	RMB'000
Salaries, allowances, bonuses and other benefits	**9,254**	8,938
Pension scheme contributions	**379**	345
Equity-settled compensation expenses	**4,372**	4,645
	14,005	13,928

The number of non-director and non-chief executive highest paid employees whose remuneration fell within the following bands is as follows:

	Number of employees	
	2018	2017
HKD4,000,001 to HKD4,500,000	**1**	–
HKD4,500,001 to HKD5,000,000	**1**	–
HKD5,000,001 to HKD5,500,000	**–**	3
HKD5,500,001 to HKD6,000,000	**–**	–
HKD6,000,001 to HKD6,500,000	**–**	–
HKD6,500,001 to HKD7,000,000	**1**	–
	3	3

On 2 February 2017, share options were granted to two non-director and non-chief executive highest paid employees in respect of their services to the Group, further details of which are included in the disclosures in note 35 to the financial statements. The fair value of such options, which has been recognised in the statement of profit or loss over the vesting period, was determined as at the date of grant and the amount included in the financial statements for the current year is included in the above non-director and non-chief executive highest paid employees' remuneration disclosures.

10. Pension schemes

The Company's subsidiaries registered in the PRC and Italy are required to participate in the retirement benefit schemes operated by the relevant local government authorities in Mainland China and Italy. The relevant local government authorities in Mainland China and Italy are responsible for the pension liabilities payable to retired employees. The Group is required to make contributions for those employees who are registered as permanent residents in Mainland China and Italy are within the scope of the relevant PRC and Italy regulations at 20% and 30% of the employees' salaries for the year, respectively.

The Group's contributions to the retirement benefit schemes for the year ended 31 December 2018 amounted to approximately RMB69,092,000 (2017: RMB52,926,000).

11. Income tax

The Group is subject to income tax on an entity basis on profits arising in or derived from the jurisdictions in which members of the Group are domiciled and operate.

Pursuant to the relevant rules and regulations of the Cayman Islands and the British Virgin Islands ("**BVI**"), the Company and the subsidiaries of the Group incorporated therein are not subject to any income tax in the Cayman Islands and the BVI.

No provision for Hong Kong profits tax has been made during the year as the Group had no assessable profits arising in Hong Kong.

Under the relevant PRC income tax law, except for Shenyang Sunshine, Sciprogen, Zhejiang Wansheng, NERC and Sunshine Guojian which enjoy certain preferential treatment available to the Group, the PRC subsidiaries of the Group are subject to income tax at a rate of 25% on their respective taxable income.

Shenyang Sunshine, Sciprogen, Zhejiang Wansheng, NERC and Sunshine Guojian are qualified as High and New Technology Enterprises and are entitled to a preferential income tax rate of 15%. In accordance with relevant Italian tax regulations, Sirton is subject to income tax at a rate of 27.9% (2017: 27.9%).

Pursuant to the PRC Corporate Income Tax Law, a 10% withholding tax is levied on dividends declared to foreign investors from the foreign investment enterprises established in Mainland China. The requirement is effective from 1 January 2008 and applies to earnings after 31 December 2007. A lower withholding tax rate may be applied if there is a tax treaty between the PRC and the jurisdiction of the foreign investors.

11. Income tax (continued)

An analysis of the provision for tax in the financial statements is as follows:

	2018 RMB'000	2017 RMB'000
Current	**242,145**	202,143
Deferred (note 22)	**(23,880)**	(24,530)
Total tax charge for the year	**218,265**	177,613

A reconciliation of the tax expense applicable to profit before tax using the statutory rate for Mainland China to the tax expense at the effective tax rate is as follows:

	2018 RMB'000	2017 RMB'000
Profit before tax	**1,495,511**	1,102,017
At the PRC's statutory income tax rate of 25%	**373,878**	275,504
Preferential income tax rates applicable to subsidiaries	**(186,862)**	(90,808)
Additional deductible allowance for research and development expenses	**(32,430)**	(18,768)
Income not subject to tax	**(24,503)**	(32,580)
Effect of non-deductible expenses	**29,964**	14,691
Tax losses utilised from previous periods	**(1,268)**	(126)
Tax losses not recognised	**59,657**	29,735
Others	**(171)**	(35)
Tax charge at the Group's effective rate	**218,265**	177,613

The effective tax rate of the Group for the year ended 31 December 2018 was 14.6% (2017: 16.1%).

12. Dividends

	2018 RMB'000	2017 RMB'000
Proposed and declared dividend	—	140,308

The Company proposed and paid 2017 share dividends with an aggregate amount of approximately RMB140,308,000 in according to the resolution passed at the Company's annual general meeting held on 20 June 2018.

13. Earnings per share attributable to ordinary equity holders of the parent

The calculation of the basic earnings per share amount is based on the profit for the year attributable to ordinary equity holders of the parent and the weighted average number of ordinary shares of 2,540,646,747 (2017: 2,535,303,101) in issue during the year, as adjusted to reflect the issue of ordinary shares during the year.

The calculation of the diluted earnings per share amount is based on the profit for the year attributable to ordinary equity holders of the parent, adjusted to reflect the interest on the convertible bonds. The weighted average number of ordinary shares used in the calculation is the number of ordinary shares in issue during the year, as used in the basic earnings per share calculation, and the weighted average number of ordinary shares assumed to have been issued at no consideration on the deemed exercise or conversion of all dilutive potential ordinary shares into ordinary shares.

The calculations of basic and diluted earnings per share are based on:

	2018 RMB'000	2017 RMB'000
Earnings		
Profit attributable to ordinary equity holders of the parent	**1,277,167**	935,389
Interest on convertible bonds	**72,773**	31,391
Profit attributable to ordinary equity holders of the parent before interest on convertible bonds	**1,349,940**	966,780

13. Earnings per share attributable to ordinary equity holders of the parent (continued)

	2018	2017
Shares		
Weighted average number of ordinary shares in issue during the year	**2,540,646,747**	2,535,303,101
Effect of dilution — weighted average number of ordinary shares:		
Warrants	**23,600,245**	32,957,466
Share options	**1,428,049**	—
Convertible bonds	**188,363,445**	85,286,782
	2,754,038,486	2,653,547,349

14. Property, plant and equipment

2018

	Land and buildings RMB'000	Plant and machinery RMB'000	Furniture and fixtures RMB'000	Motor vehicles RMB'000	Construction in progress RMB'000	Total RMB'000
At 31 December 2017 and at 1 January 2018:						
Cost	712,401	796,402	123,013	13,268	730,547	2,375,631
Accumulated depreciation	(148,026)	(369,488)	(88,889)	(9,559)	–	(615,962)
Net carrying amount	564,375	426,914	34,124	3,709	730,547	1,759,669
At 1 January 2018, net of accumulated depreciation	564,375	426,914	34,124	3,709	730,547	1,759,669
Additions	5,606	19,566	35,868	1,081	148,181	210,302
Disposals	(8,227)	(4,327)	(439)	(159)	–	(13,152)
Depreciation provided during the year	(44,635)	(89,222)	(30,046)	(1,345)	–	(165,248)
Transfers	168,785	352,009	4,185	–	(524,979)	–
Exchange realignment	97	121	5	2	165	390
At 31 December 2018, net of accumulated depreciation	686,001	705,061	43,697	3,288	353,914	1,791,961
At 31 December 2018:						
Cost	857,819	1,148,204	159,486	13,547	353,914	2,532,970
Accumulated depreciation	(171,818)	(443,143)	(115,789)	(10,259)	–	(741,009)
Net carrying amount	686,001	705,061	43,697	3,288	353,914	1,791,961

A freehold land with a carrying amount of approximately RMB3,996,000 as at 31 December 2018 (2017: RMB3,973,000) is situated in Italy.

The Group is in the process of applying for the title certificates of certain of its buildings with an aggregate book value of approximately RMB68,885,000 as at 31 December 2018 (2017: RMB8,199,000). The directors are of the view that the Group is entitled to lawfully and validly occupy and use the above-mentioned buildings. The directors are also of the opinion that the aforesaid matter did not have any significant impact on the Group's financial position as at 31 December 2018.

The Group had no property, plant and equipment pledged as at 31 December 2018 (2017: Nil).

14. Property, plant and equipment (continued)

2017

	Land and buildings RMB'000	Plant and machinery RMB'000	Furniture and fixtures RMB'000	Motor vehicles RMB'000	Construction in progress RMB'000	Total RMB'000
At 1 January 2017:						
Cost	790,386	674,686	105,203	14,761	766,863	2,351,899
Accumulated depreciation	(192,333)	(324,797)	(61,691)	(10,265)	–	(589,086)
Net carrying amount	598,053	349,889	43,512	4,496	766,863	1,762,813
At 1 January 2017, net of accumulated depreciation	598,053	349,889	43,512	4,496	766,863	1,762,813
Additions	2,259	16,960	18,271	936	111,587	150,013
Disposals	–	(26,978)	(153)	(117)	–	(27,248)
Depreciation provided during the year	(40,577)	(57,537)	(28,727)	(1,612)	–	(128,453)
Transfers	3,442	143,366	1,187	–	(147,995)	–
Exchange realignment	1,198	1,214	34	6	92	2,544
At 31 December 2017, net of accumulated depreciation	564,375	426,914	34,124	3,709	730,547	1,759,669
At 31 December 2017:						
Cost	712,401	796,402	123,013	13,268	730,547	2,375,631
Accumulated depreciation	(148,026)	(369,488)	(88,889)	(9,559)	–	(615,962)
Net carrying amount	564,375	426,914	34,124	3,709	730,547	1,759,669

15. Prepaid land lease payments

	2018 RMB'000	2017 RMB'000
Carrying amount at 1 January	**314,726**	306,479
Additions	**28,959**	16,148
Recognised during the year	**(8,480)**	(7,901)
Carrying amount at 31 December	**335,205**	314,726
Current portion included in prepayments, other receivables and other assets (note 25)	**(8,748)**	(8,169)
Non-current portion	**326,457**	306,557

The balance represented the amount paid to the PRC government authorities for the land use rights of the land situated in Mainland China which are amortised on the straight-line basis over the lease periods of 30 years to 50 years.

As at 31 December 2018, the Group had no prepaid land lease payments pledged (2017: Nil).

16. Goodwill

	RMB'000
Cost at 1 January 2017	4,126,180
Exchange realignment	(202,582)
Cost and net carrying amount at 31 December 2017	3,923,598
Cost at 1 January 2018	**3,923,598**
Exchange realignment	**165,466**
Cost and net carrying amount at 31 December 2018	**4,089,064**
At 31 December 2018:	
Cost	**4,089,064**
Accumulated impairment	**—**
Net carrying amount	**4,089,064**

16. Goodwill (continued)

Impairment testing of goodwill

Goodwill acquired through business combinations is allocated to the group of biopharmaceutical products cash-generating units ("**CGUs**"), which is the sole group of CGUs of the Group.

The recoverable amount of the group of CGUs has been determined based on a value in use calculation using cash flow projections which are based on financial forecast approved by the Company's directors covering a period of five years (the "**Forecast Period**"). The discount rate applied to the cash flow projections is 16.0%, which is determined by reference to the average rate for similar industries and the business risk of the relevant business units. The growth rate used to extrapolate the cash flows beyond the Forecast Period is 3%.

In the opinion of the Company's directors, any reasonably possible change in the key assumptions on which the recoverable amount is based would not cause the carrying amount of the group of CGUs to exceed the recoverable amount.

Assumptions were used in the value in use calculation of the group of CGUs as at 31 December 2018. The following describes each key assumption on which management has based its cash flow projections to undertake impairment testing of goodwill:

Gross margins — Gross margins are based on the average gross margins achieved in the year immediately before the forecast year and are increased over the Forecast Period for anticipated efficiency improvements and expected market development.

Discount rate — The discount rate used is before tax and reflects specific risks relating to the relevant group of CGUs.

Growth rate — The growth rate is based on historical sales over the last three years and expected growth rates of the pharmaceutical market according to published industry research.

The values assigned to the key assumptions are consistent with external information sources.

In the opinion of the Company's directors, a decrease in the growth rate by 5% would cause the recoverable amount of the cash-generating unit to exceed its carrying amount by approximately RMB2,437,495,000 to RMB714,359,000, and any reasonably possible change in the other key assumptions on which the recoverable amount is based would not cause the cash-generating unit's carrying amount to exceed its recoverable amount.

17. Other intangible assets

2018

	Exclusive distribution right RMB'000	IP rights RMB'000	Patents and technology know-how RMB'000	IPR&Ds RMB'000	Others RMB'000	Total RMB'000
Cost at 1 January 2018, net of accumulated amortisation	402,013	1,346,882	341,690	124,636	38,295	2,253,516
Additions	167,374	3,460	–	13,845	1,438	186,117
Amortisation provided during the year	(39,246)	(70,362)	(40,609)	–	(11,438)	(161,655)
Exchange realignment	20,745	–	–	–	12	20,757
At 31 December 2018	550,886	1,279,980	301,081	138,481	28,307	2,298,735
At 31 December 2018:						
Cost	618,712	1,717,863	422,897	138,481	68,019	2,965,972
Accumulated amortisation	(67,826)	(437,883)	(121,816)	–	(39,712)	(667,237)
Net carrying amount	550,886	1,279,980	301,081	138,481	28,307	2,298,735

17. Other intangible assets (continued)

2017

	Exclusive distribution right RMB'000	IP rights RMB'000	Patents and technology know-how RMB'000	IPR&Ds RMB'000	Others RMB'000	Total RMB'000
Cost at 1 January 2017, net of accumulated amortisation	343,382	1,416,746	362,917	117,795	47,660	2,288,500
Additions	96,461	–	–	6,841	1,325	104,627
Amortisation provided during the year	(18,322)	(69,864)	(21,227)	–	(10,716)	(120,129)
Exchange realignment	(19,508)	–	–	–	26	(19,482)
At 31 December 2017	402,013	1,346,882	341,690	124,636	38,295	2,253,516
At 31 December 2017:						
Cost	428,671	1,714,403	422,897	124,636	66,560	2,757,167
Accumulated amortisation	(26,658)	(367,521)	(81,207)	–	(28,265)	(503,651)
Net carrying amount	402,013	1,346,882	341,690	124,636	38,295	2,253,516

Impairment testing of IPR&Ds

IPR&Ds were either acquired from a third party or capitalised in accordance with the accounting policies for the research and development costs in note 2.4 to the financial statements. The useful life of IPR&Ds is considered indefinite until the completion or abandonment of the related research and development efforts. IPR&Ds are not amortised but tested individually for impairment annually. The useful life of an intangible asset with an indefinite life is reviewed annually to determine whether the indefinite life assessment continues to be supportable.

The recoverable amounts of IPR&Ds have been determined based on a value in use calculation using cash flow projections which are based on financial forecast approved by the Company's directors. The discount rates applied to the cash flow projections are 26.0%,17.0%,18.0% and 19.0%, which are determined by reference to the average rates for in progress research and development projects with similar business risk and after taking into account the risk premium in connection with the related research and development efforts.

17. Other intangible assets (continued)

Impairment testing of IPR&Ds (continued)

In the opinion of the Company's directors, any reasonably possible change in the key assumptions on which the recoverable amounts are based would not cause the carrying amounts of IPR&Ds to exceed their recoverable amounts.

Assumptions were used in the value in use calculation of IPR&Ds as at 31 December 2018. The following describes each key assumption on which management has based its cash flow projections to undertake impairment testing of IPR&Ds:

Discount rates — The discount rates used are before tax and reflect specific risks in respect of the related research and development efforts.

Royalty rate — The royalty rate is based on similar royalty rates charged by third parties in the pharmaceutical and biotech industry.

Growth rate — The growth rates used to extrapolate the cash flows beyond the four-year period are based on the estimated growth rate of the Group taking into account the industry growth rate, past experience and the medium-term or long-term growth target of the Group.

The values assigned to the key assumptions are consistent with external information sources.

18. Investment in a joint venture

	2018 RMB'000	2017 RMB'000
At 1 January	—	134
Additions	2,500	—
Disposals	—	(134)
At 31 December	2,500	—

Particulars of the Group's joint venture are as follows:

Name	Place of registration and business	Percentage of Ownership interest	Voting power	Profit sharing	Principal activities
Liaoning Sunshine Bio-Pharmaceutical Investment Fund Management Partnership LLP ("**Sunshine Bio-Pharmaceutical Fund**")	PRC/ Mainland China	50%	50%	50%	Health industry investment management

18. Investment in a joint venture (continued)

The following table illustrates the financial information of the Group's joint venture:

	2018 RMB'000	2017 RMB'000
Aggregate carrying amount of the Group's investment in the joint venture	**2,500**	—

19. Investments in associates

	2018 RMB'000	2017 RMB'000
Share of net assets	**385,850**	33,510

Particulars of the Group's associates are as follows:

Name	Particulars of issued shares held	Place of incorporation/ registration and business	Percentage of ownership interest attributable to the Group %	Principal activities
Refuge Biotechnologies, Inc.(a) (b) ("**Refuge**")	Preferred shares	United States	10.62	Research and development
Shanghai Companion Diagnostics Technology Ltd. (a) (c) ("**Shanghai Companion**")	Ordinary shares	PRC/ Mainland China	20.00	Research and development
Liaoning Sunshine Medical Industry Investment Fund Partnership LLP(a) (d) ("**Sunshine Medical Industry Fund**")	Limited partner	PRC/ Mainland China	66.01	Investment holding

19. Investments in associates (continued)

Notes:

(a) Not audited by Ernst & Young, Hong Kong or another member firm of the Ernst & Young global network.

(b) On 30 April 2018, the Group entered into a share subscription agreement to purchase 1,962,349 preferred shares which equal to approximately 10.62% equity of Refuge at a consideration of USD8,000,000. The Group retained one seat on the board and can exercise significant influence over Refuge.

(c) On 10 March 2018, the Group entered into an agreement to acquire a 20% equity interest in Shanghai Companion at a consideration of RMB250,000.

(d) On 28 December 2018, Shenyang Sunshine paid an initial capital contribution of RMB333,333,000 to subscribe for 66.01% of the equity interest in Sunshine Medical Industry Fund. The Group can exercise significant influence over Sunshine Medical Industry Fund.

The following table illustrates the aggregate financial information of the Group's associates that are not individually material:

	2018	2017
	RMB'000	RMB'000
Share of the associates' results:		
Net losses	**(8,245)**	(14,442)
Total comprehensive losses	**(8,245)**	(14,442)

	2018	2017
	RMB'000	RMB'000
Aggregate carrying amount of the Group's investments in the associates	**385,850**	33,510

20. Equity investments designated at fair value through other comprehensive income/available-for-sale investments

	2018	2017
	RMB'000	RMB'000
Equity investments designated at fair value through other comprehensive income		
Listed equity investments, at fair value	**32,872**	—
Unlisted equity investments, at fair value	**313,246**	—
	346,118	—
Available-for-sale investments		
Treasury or cash management products, at fair value	**—**	671,754
Unlisted equity investments, at fair value	**—**	48,333
Listed equity investments, at fair value	**—**	32,810
	—	752,897

The above equity investments were irrevocably designated at fair value through other comprehensive income as the Group considers these investments to be strategic in nature.

In August 2018, the Group sold its equity interest in a listed company as this investment no longer coincided with the Group's investment strategy. The fair value on the date of sale was RMB43,076,000 and the accumulated gain recognised in other comprehensive income of RMB5,796,000 was transferred to retained earnings.

During the year ended 31 December 2017, the gross loss in respect of the Group's available-for-sale investments recognised in other comprehensive income amounted to RMB4,450,000, of which no amount was reclassified from other comprehensive income to the statement of profit or loss for the year ended 31 December 2017.

21. Long-term receivables

	2018 RMB'000	2017 RMB'000
Long-term receivables due from a related party (a)	**36,853**	35,372
Long-term receivables	**1,845**	1,845
	38,698	37,217
Provision for impairment of long-term receivables	**(9,940)**	(1,845)
	28,758	35,372

(a) On 29 March 2016, Shenyang Sunshine lent to Zhejiang Sunshine Pharmaceutical Co., Ltd. ("**Zhejiang Sunshine**"), a related party which was under significant influence of a director and key management personnel of the Company, a convertible loan with a principal amount of RMB75,000,000 at an annual interest rate of 8%. The convertible loan can be converted into equity interests in Zhejiang Sunshine at the discretion of Shenyang Sunshine. In 2017, Zhejiang Sunshine had repaid the principal amount of RMB50,000,000. The accrued interest for the year ended 31 December 2018 was RMB1,481,000 (2017: RMB5,855,000). The Group recognised an allowance for ECLs of RMB 8,095,000.

The movements in the loss allowance for impairment of long-term receivables are as follows:

	2018 RMB'000	2017 RMB'000
Balance at beginning of the year	**1,845**	1,845
Additions	**8,095**	—
Balance at end of the year	**9,940**	1,845

The individually impaired long-term receivables relate to customers that were in financial difficulties or were in default and only a portion of the receivables is expected to be recovered.

21. Long-term receivables (continued)

Impairment under IFRS 9 for the year ended 31 December 2018

An impairment analysis is performed at each reporting date using a provision matrix to measure expected credit losses. The provision rates are based on ageing. The calculation reflects the probability-weighted outcome, the time value of money and reasonable and supportable information that is available at the reporting date about past events, current conditions and forecasts of future economic conditions.

Set out below is the information about the credit risk exposure on the Group's long-term receivables using a provision matrix:

As at 31 December 2018

	Ageing		
	Within 1 Year	1 to 2 years	Over 2 years
Expected credit loss rate	1%	56.6%	100%
Gross carrying amount (RMB'000)	26,481	5,855	6,362
Expected credit losses (RMB'000)	265	3,313	6,362

Impairment under IAS 39 for the year ended 31 December 2017

Included in the above provision for impairment of long-term receivables was RMB1,845,000, which was measured based on incurred credit losses under IAS 39 as at 31 December 2017.

22. Deferred tax

The movements in deferred tax assets during the year are as follows:

	Accruals RMB'000	Provision for inventories trade and other receivables RMB'000	Decelerated depreciation for tax purposes RMB'000	Government grants RMB'000	Others RMB'000	Total RMB'000
Gross deferred tax assets at 1 January 2017	27,834	2,612	499	21,900	12,949	65,794
Deferred tax credited/(charged) to the consolidated statement of profit or loss during the year (note 11)	3,332	2,356	459	6,549	(2,294)	10,402
Exchange realignment	—	—	—	—	167	167
Gross deferred tax assets at 31 December 2017	31,166	4,968	958	28,449	10,822	76,363
Gross deferred tax assets at 1 January 2018	**31,166**	**4,968**	**958**	**28,449**	**10,822**	**76,363**
Deferred tax credited/(charged) to the consolidated statement of profit or loss during the year (note 11)	**(57)**	**8,742**	**237**	**(500)**	**(443)**	**7,979**
Exchange realignment	**—**	**—**	**—**	**—**	**60**	**60**
Gross deferred tax assets at 31 December 2018	**31,109**	**13,710**	**1,195**	**27,949**	**10,439**	**84,402**

22. Deferred tax (continued)

Deferred tax assets have not been recognised in respect of the following items:

	2018 RMB'000	2017 RMB'000
Tax losses arising in Mainland China (a)	**112,452**	89,846
Tax losses arising in Hong Kong and other countries (b)	**291,588**	86,960
	404,040	176,806

Notes:

(a) The tax losses arising in Mainland China are available for a maximum of ten years for offsetting against future taxable profits of the companies in which the losses arose.

(b) The tax losses arising in Hongkong Sansheng and tax exempted entities in other countries could not be utilised to offset against future profits.

Deferred tax assets have not been recognised in respect of the above items as it is not considered probable that tax profits will be available against which the above items can be utilised.

22. Deferred tax (continued)

The movements in deferred tax liabilities during the year are as follows:

	Fair value adjustment arising from acquisition of subsidiaries RMB'000	Fair value adjustments of equity investments designated at fair value through other comprehensive income RMB'000	Total RMB'000
Gross deferred tax liabilities at 1 January 2017	294,396	—	294,396
Deferred tax credited to the consolidated statement of profit or loss during the year (note 11)	(14,128)	—	(14,128)
Gross deferred tax liabilities at 31 December 2017 and 1 January 2018	**280,268**	**—**	**280,268**
Deferred tax credited to the consolidated statement of profit or loss during the year (note 11)	**(15,901)**	**—**	**(15,901)**
Deferred tax credited to the consolidated statement of comprehensive income	**—**	**6,394**	**6,394**
Gross deferred tax liabilities at 31 December 2018	**264,367**	**6,394**	**270,761**

Pursuant to the PRC Corporate Income Tax Law, a 10% withholding tax is levied on dividends declared to foreign investors from the foreign investment enterprises established in Mainland China. The requirement is effective from 1 January 2008 and applies to earnings after 31 December 2007. A lower withholding tax rate may be applied if there is a tax treaty between Mainland China and the jurisdiction of the foreign investors. For the Group, the applicable rate is 5% or 10%. The Group is therefore liable for withholding taxes on dividends distributed by those subsidiaries established in Mainland China in respect of earnings generated from 1 January 2008.

At 31 December 2018, no deferred tax liabilities have been recognised for withholding taxes that would be payable on the unremitted earnings that are subject to withholding taxes of the Group's subsidiaries established in Mainland China (2017: Nil).

22. Deferred tax (continued)

In the opinion of the directors, it is not probable that these subsidiaries will distribute such earnings in the foreseeable future. The aggregate amount of temporary differences associated with investments in subsidiaries in Mainland China for which deferred tax liabilities have not been recognised was approximately RMB3,651,738,000 (2017: RMB2,757,951,000).

There are no income tax consequences attaching to the payment of dividends by the Company to its shareholders.

23. Inventories

	2018 RMB'000	2017 RMB'000
Raw materials	**87,985**	54,942
Work in progress	**188,270**	180,972
Finished goods	**81,775**	121,996
Consumables and packaging materials	**27,365**	19,912
	385,395	377,822
Provision for impairment of inventories	**(786)**	(1,293)
	384,609	376,529

24. Trade and notes receivables

	2018 RMB'000	2017 RMB'000
Trade receivables	**1,410,660**	1,212,782
Notes receivable	**136,854**	138,309
	1,547,514	1,351,091
Provision for impairment of trade receivables	**(63,629)**	(27,007)
	1,483,885	1,324,084

24. Trade and notes receivables (continued)

The Group's trading terms with its customers are mainly on credit. The credit period is generally two months, extending up to three months for major customers. The Group seeks to maintain strict control over its outstanding receivables and overdue balances are reviewed regularly by senior management. In view of the aforementioned and the fact that the Group's trade receivables relate to a large number of diversified customers, there is no significant concentration of credit risk. Trade receivables are non-interest-bearing.

An ageing analysis of the trade receivables as at the end of the reporting period, based on the invoice date, is as follows:

	2018	2017
	RMB'000	RMB'000
Within 1 month	**708,267**	662,643
1 to 3 months	**566,211**	436,021
3 to 6 months	**28,350**	25,366
6 months to 1 year	**44,203**	61,745
1 to 2 years	**38,939**	18,525
Over 2 years	**24,690**	8,482
	1,410,660	1,212,782

The movements in the loss allowance for impairment of trade receivables are as follows:

	2018	2017
	RMB'000	RMB'000
At beginning of the year	**27,007**	11,620
Effect of adoption of IFRS 9	**—**	—
At beginning of the year	**27,007**	11,620
Impairment losses, net (note 6)	**36,622**	15,386
Exchange realignment	**—**	1
At end of the year	**63,629**	27,007

24. Trade and notes receivables (continued)

Impairment under IFRS 9 for the year ended 31 December 2018

An impairment analysis is performed at each reporting date using a provision matrix to measure expected credit losses. The provision rates are based on ageing for groupings of various customer segments with similar loss patterns (i.e., by customer type and rating). The calculation reflects the probability-weighted outcome, the time value of money and reasonable and supportable information that is available at the reporting date about past events, current conditions and forecasts of future economic conditions.

Set out below is the information about the credit risk exposure on the Group's trade receivables using a provision matrix:

As at 31 December 2018

	Ageing					
	Within 1 month	1 to 3 months	3 to 6 months	6 months to 1 year	1 to 2 years	Over 2 years
Expected credit loss rate	0.83%	0.83%	0.83%	0.83%	71.29%	100%
Gross carrying amount (RMB'000)	708,267	566,211	28,350	44,203	38,939	24,690
Expected credit losses (RMB'000)	5,879	4,700	235	367	27,758	24,690

Impairment under IAS 39 for the year ended 31 December 2017

Included in the above provision for impairment of trade receivables was RMB27,007,000, which was measured based on incurred credit losses under IAS 39 as at 31 December 2017.

The ageing analysis of the trade receivables as at 31 December 2017 that were not individually nor collectively considered to be impaired under IAS 39 is as follows:

	2017 RMB'000
Neither past due nor impaired	1,098,664
Less than 3 months past due	25,366
Over 3 months past due	61,745
	1,185,775

Receivables that were neither past due nor impaired related to a large number of diversified customers for whom there was no recent history of default.

24. Trade and notes receivables (continued)

Impairment under IAS 39 for the year ended 31 December 2017 (continued)

Receivables that were past due but not impaired related to a number of independent customers that had a good track record with the Group. Based on past experience, the directors of the Group were of the opinion that no provision for impairment under IAS 39 was necessary in respect of these balances as there had not been a significant change in credit quality and the balances were still considered fully recoverable. The illustrative disclosures for transfers of financial assets relating to endorsement of bills are provided on note 44.

25. Prepayments, other receivables and other assets

	2018 RMB'000	2017 RMB'000
Prepayments, other receivables and other assets — current portion:		
Interest receivables	**75**	585
Prepayments	**27,763**	20,801
Prepaid land lease payments — current portion	**8,748**	8,169
Other deposits and other receivables	**85,945**	46,557
Deductible input VAT	**8,601**	39,423
Due from related parties — current portion	**321,441**	79,094
Due from Wealth Honest (a)	**266,808**	265,278
	719,381	459,907
Impairment allowance	**(25,384)**	(656)
	693,997	459,251
Prepayments, other receivables and other assets — non-current portion:		
Advance payments for property, plant and equipment	**65,076**	32,137
Other non-current assets	**16,073**	7,700
	81,149	39,837

Note:

(a) On 27 December 2017, the Group entered into an agreement with Wealth Honest Limited ("**Wealth Honest**"), Zhongjing Xinhua Property Management (Hong Kong) Co., Limited ("**Zhongjing Xinhua**") and Gao Yang, the sole director of Wealth Honest and Zhongjing Xinhua, to lend Wealth Honest EUR34,000,000 at an annual interest rate of 9%. The loan is pledged with the 100% equity of Wealth Honest Cayman Holdings Company Limited ("**Wealth Honest Cayman**") which is held by Wealth Honest, the 100% equity of Wealth Honest Fund LP which is held by Wealth Honest Cayman and a guarantee provided by Zhongjing Xinhua and Gao Yang.

25. Prepayments, other receivables and other assets (continued)

The movements in the loss allowance for impairment of other receivables are as follows:

	2018 RMB'000	2017 RMB'000
Balances at beginning of the year	**(656)**	(1,141)
Charge for the year	**(23,299)**	(695)
Write-off	**—**	1,180
Exchange realignment	**(1,429)**	—
At end of the year	**(25,384)**	(656)

Other receivables mainly represent the Group's receivables from related parties and third parties. In according to the related party's historical credit, repayment and mortgage information, the loss given default was estimated to be 1% within one year, 56.6% from one year to two years and 100% for more than two years.

26. Financial assets at fair value through profit or loss

	2018 RMB'000	2017 RMB'000
Other unlisted investments, at fair value	**35,260**	—

The above unlisted investments at 31 December 2018 were treasury or cash management products issued by banks in Mainland China. They were mandatorily classified as financial assets at fair value through profit or loss as their contractual cash flows are not solely payments of principal and interest.

27. Cash and cash equivalents and pledged deposits

	2018 RMB'000	2017 RMB'000
Cash and bank balances	**1,791,104**	2,396,410
Restricted cash	**1,501**	2,211
Pledged deposits	**14,289**	11,845
	1,806,894	2,410,466
Less:		
Pledged deposits for letters of credit	**(248)**	(263)
Pledged deposits for bank acceptance bills	**(14,041)**	(11,582)
Cash and cash equivalents	**1,792,605**	2,398,621

The RMB is not freely convertible into other currencies. However, under Mainland China's Foreign Exchange Control Regulations and Administration of Settlement, Sales and Payment of Foreign Exchange Regulations, the Group is permitted to exchange RMB for other currencies through banks authorised to conduct foreign exchange business. The remittance of funds out of Mainland China is subject to exchange restrictions imposed by the PRC government.

The Group's cash and cash equivalents and deposits as at 31 December 2018 are denominated in the following currencies:

	2018 RMB'000	2017 RMB'000
Denominated in:		
— RMB	**674,036**	329,729
— HKD	**142,063**	4,558
— USD	**308,185**	936,699
— EUR	**682,607**	1,139,478
— Great Britain Pound ("**GBP**")	**3**	2
	1,806,894	2,410,466

Cash at banks earns interest at floating rates based on daily bank deposit rates. The bank balances and deposits are deposited with creditworthy banks with no recent history of default. The carrying amounts of the cash and cash equivalents approximated to their fair values as at the end of the reporting period. Deposits of approximately RMB14,289,000 (2017: RMB11,845,000) have been pledged to secure letters of credit and bank acceptance bills as at 31 December 2018.

28. Trade and bills payables

An ageing analysis of the trade and bills payables as at the end of the reporting period, based on the invoice date, is as follows:

	2018 RMB'000	2017 RMB'000
Within 3 months	**92,046**	88,458
3 to 6 months	**18,721**	179,505
Over 6 months	**2,148**	6,605
	112,915	274,568

The trade and bills payables are non-interest-bearing and repayable within the normal operating cycle or on demand.

29. Other payables and accruals

	2018 RMB'000	2017 RMB'000
Accrued selling and marketing expenses	**308,205**	240,548
Accrued salaries, bonuses and welfare expenses	**173,004**	151,079
Receipts in advance from customers	**—**	76,854
Contract liabilities (a)	**29,816**	—
Due to related parties (note 42 (b))	**70,691**	76,114
Taxes payable (other than income tax)	**50,640**	38,875
Interest payables	**86,203**	28,557
Payable to vendors of property, plant and equipment	**16,956**	10,601
Payable to vendors of other intangible assets	**4,478**	2,689
Others	**105,732**	70,581
	845,725	695,898

29. Other payables and accruals (continued)

Notes:

(a) Details of contract liabilities as at 31 December 2018 and 1 January 2018 are as follows:

	31 December 2018 RMB'000	1 January 2018 RMB'000
Short-term advances received from customers		
Sale of biopharmaceuticals	**29,816**	76,854
Total contract liabilities	**29,816**	76,854

(b) Other payables are non-interest-bearing.

30. Deferred income

	2018 RMB'000	2017 RMB'000
At beginning of the year	**337,081**	295,000
Received during the year		
— Government grants (a)	**17,434**	72,476
Less: Recognition during the year		
— Government grants (a)	**(43,291)**	(30,395)
	311,224	337,081
Less: Deferred income — current portion		
— Government grants (a)	**(35,887)**	(26,671)
	275,337	310,410

Note:

(a) The grants relate to the subsidies received from the government for compensation for expenses arising from research and the improvement of manufacturing facilities on certain special projects. Upon completion of the related projects and the final assessment of the relevant government authorities, the grants related to the expense items will be recognised as other income directly in the consolidated statement of profit or loss when such expense items have been incurred by the Group and the grants related to an asset will be released to the consolidated statement of profit or loss over the expected useful life of the relevant asset.

31. Interest-bearing bank and other borrowings

	2018			2017		
	Effective interest rate (%)	Maturity	RMB'000	Effective interest rate (%)	Maturity	RMB'000
Current						
Bank loans – unsecured	–	–	–	4.13	2018	100,000
Bank loans – secured	3.71	2019	52,572	4.13	2018	200,000
Current portion of long term bank loans – secured	4.2	2019	517,756	4.2	2018	787,466
			570,328			1,087,466
Non-current						
Other secured bank loans	2.75–4.65	2021–2028	425,022	4.2–4.65	2019–2021	1,046,791
			425,022			1,046,791
Convertible bonds (note 32)	2.5	2017–2022	2,299,321	2.5	2017–2022	2,271,874
			2,299,321			2,271,874
			3,294,671			4,406,131

31. Interest-bearing bank and other borrowings (continued)

	2018 RMB'000	2017 RMB'000
Analysed into:		
Bank loans and overdrafts repayable:		
Within one year or on demand	**570,328**	1,087,466
In the second year	**–**	496,791
In the third to ten years, inclusive	**425,022**	550,000
	995,350	2,134,257

Notes:

(a) The bank borrowings bear interest at fixed interest rates ranging from 2.75% to 4.65% per annum.

(b) The bank borrowings are secured by 31.76% of the equity interests in Sunshine Guojian held by Xing Sheng, 100% of the equity interests in Shenyang Sunshine held by Hongkong Sansheng and 43.42% of the equity interests in Sunshine Guojian held by Full Gain and guaranteed by Sunshine Guojian with a bank guarantee amounting to HKD206,000,000.

(c) As at 31 December 2018, except for secured bank borrowings of RMB692,996,000 (2017: RMB1,284,257,000) which was denominated in HKD and RMB2,354,000 (2017: Nil) which was denominated in EUR, all the bank borrowings were denominated in RMB.

(d) The carrying amounts of the current bank borrowings approximate to their fair values.

32. Convertible bonds

On 21 July 2017, Strategic, a directly wholly-owned subsidiary of the Company, issued Euro-denominated zero-coupon convertible bonds with a nominal value of EUR300,000,000. There was no repayment in the number of these convertible bonds during the year. The bonds are guaranteed by the Company and convertible at the option of the bondholders into ordinary shares with the initial conversion price of HKD14.28 per share at any time on and after 31 August 2017 and up to the close of business on the date falling seven days prior to 21 July 2022. The bonds are redeemable at the option of the bondholders at a 2.5% gross yield upon early redemption.

The fair value of the liability component was estimated at the issuance date using an equivalent market interest rate for a similar bond without a conversion option. The residual amount is assigned as the equity component and is included in shareholders' equity.

The convertible bonds issued during the year have been split into the liability and equity components as follows:

	RMB'000
Nominal value of convertible bonds issued at 21 July 2017	2,351,970
Equity component	(47,133)
Direct transaction costs attributable to the liability component	(28,224)
Liability component at the issuance date	2,276,613
Interest accrual	5,472
Exchange realignment	(10,211)
Liability component at 31 December 2017	2,271,874
Liability component at 1 January 2018	**2,271,874**
Interest accrual	**13,918**
Exchange realignment	**13,529**
Liability component at 31 December 2018 (note 31)	**2,299,321**

33. Retirement benefit obligations

The Italian subsidiary of the Group operates an unfunded defined benefit plan, namely the Italian staff leaving indemnity (the "**TFR**"). The TFR is classified as a defined benefit pension plan, which defines an amount of pension benefit that an employee will receive on retirement, usually dependent on one or more factors such as age, years of service and compensation.

In 2007, with the Italian labour law reform, it was decided that the TFR accrued each month starting from January 2008 would be paid monthly to a private external fund or social institution, transforming the contribution to the pension plan into a defined contribution plan. It was also decided that the remaining TFR balances by the end of 2007 would be recorded as non-current liabilities to be paid to employees upon retirement. Such TFR balances are subject to actuarial valuation in accordance with IAS 19.

The TFR benefit liability represents the present value of the defined benefit obligations at the end of the reporting period less the fair value of plan assets, together with adjustments for unrecognised past-service costs. The defined benefit obligations are calculated annually by an independent actuary using the project unit credit method. The present value of the defined benefit obligations is determined by discounting the estimated future cash outflows. Actuarial gains and losses arising from the changes in actuarial assumptions are charged or credited to other comprehensive income in the period in which they arise. Past service costs are recognised immediately in profit or loss.

The plan is exposed to inflation risk and the risk of changes in the life expectancy of the plan members.

The principal actuarial assumptions used at the end of the reporting period are as follows:

	2018
Discount rate (%)	**1.5**
Expected rate of future pension cost increases (%) — 2019	**2.5**
Expected rate of future pension cost increases (%) — 2020	**2.6**
Expected rate of future pension cost increases (%) — 2021	**2.7**
Expected rate of future pension cost increases (%) — from 2022	**3.0**

	2017
Discount rate (%)	1.4
Expected rate of future pension cost increases (%)	2.2

33. Retirement benefit obligations (continued)

A quantitative sensitivity analysis for significant assumptions as at the end of the reporting period is shown below:

	Increase in rate %	Net decrease in defined benefit obligations RMB'000	Decrease in rate %	Net increase in defined benefit obligations RMB'000
2018				
Discount rate	**0.5**	**257**	**0.5**	**280**
2017				
Discount rate	0.5	232	0.5	252

The sensitivity analysis above has been determined based on a method that extrapolates the impact on defined benefit obligations as a result of reasonable changes in key assumptions occurring at the end of the reporting period. The sensitivity analysis above is based on a change in an assumption while holding all other assumptions constant. The sensitivity analysis may not be representative of an actual change in the defined benefit obligations as it is unlikely that changes in assumptions would occur in isolation of one another.

The total expenses recognised in the consolidated statement of profit or loss in respect of the plan are as follows:

	2018 RMB'000	2017 RMB'000
Current service cost	**227**	—
Interest cost	**79**	72
Net benefit expenses	**306**	72
Recognised in finance costs	**306**	72

33. Retirement benefit obligations (continued)

The movements in the present value of the defined benefit obligations are as follows:

	2018 RMB'000	2017 RMB'000
At 1 January	**5,823**	5,672
Current service cost	**227**	—
Interest cost	**79**	72
Benefit paid	**(50)**	(431)
Actuarial loss	**188**	131
Exchange realignment	**36**	379
At 31 December	**6,303**	5,823

The plan has no defined benefit plan assets.

The Group does not expect to make further contributions to the defined benefit plan in future years.

The average duration of the defined benefit obligations at the end of the reporting period was 15 years (2017: 15 years).

34. Share capital

Shares

	2018 RMB'000	2017 RMB'000
Issued and fully paid:		
2,543,714,551 (2017: 2,538,796,890) ordinary shares	**156**	156

	Number of shares in issue	Share capital RMB'000	Share premium RMB'000	Total RMB'000
Ordinary shares of USD0.00001 each at 31 December 2017 and 1 January 2018	**2,538,796,890**	**156**	**4,372,460**	**4,372,616**
Shares issued upon exercise of warrants	**4,917,661**	**—**	**3,596**	**3,596**
Ordinary shares of USD0.00001 each at 31 December 2018	**2,543,714,551**	**156**	**4,376,056**	**4,376,212**

	Number of shares	Treasury shares RMB'000
At 1 January 2018	**—**	**—**
Repurchased	**4,370,000**	**40,586**
At 31 December 2018	**4,370,000**	**40,586**

During the year ended 31 December 2018, the Group had repurchased a total of 4,370,000 ordinary shares at an aggregate cash consideration of RMB40,586,000(excluding expenses). All the repurchased shares had been cancelled by the end of the reporting date.

35. Share incentive scheme

Share option scheme adopted by the Company

On 26 September 2016, a total of 20,000,000 share options, each of which entitles the holders to subscribe for one ordinary share of the Company at an exercise price of HKD9.10, under the post-IPO share option scheme of the Company adopted on 23 May 2015 and 28 June 2016 (the "**Share Option Scheme**"), were granted to TMF (Cayman) Ltd. ("**TMF**"), as the trustee of The Empire Trust (the "**Grantee**"), a trust established by the Company for the beneficiaries who are executive directors and employees of the Group and its holding companies, and any other persons as nominated from time to time by the advisory committee of the Grantee that is established with the authority of the board of the directors of the Company. The share options will vest and become exercisable upon meeting certain vesting conditions. If the vesting conditions are not met, the share options will lapse.

On 2 February 2017, the Company and the Grantee had agreed that the grant of 20,000,000 share options which was approved by the board on 22 September 2016 was cancelled at nil consideration. By the date of cancellation, no beneficiary had been nominated by the advisory committee of the Grantee and no options had been designated to any beneficiary, and thus the Group did not recognise any share-based payment expenses in relation to the cancelled 20,000,000 share options. On the same date, a total of 20,000,000 share options, each of which entitles the holders to subscribe for one ordinary share of the Company at an exercise price of HKD7.62 (which is the highest of the closing price of HKD7.30 per share and the average closing price of HKD7.62 per share) were granted to TMF, as the trustee of the Grantee under the Share Option Scheme for the benefits of the designated beneficiaries. The share options will vest and become exercisable upon meeting certain vesting conditions. If the vesting conditions are not met, the share options will lapse.

The following share options were outstanding under the Scheme during the year:

	2018		2017	
	Weighted average exercise price HKD per share	**Number of options '000**	Weighted average exercise price HKD per share	Number of options '000
At 1 January	**7.62**	**20,000**	—	—
Granted during the year	**—**	**—**	7.62	20,000
Forfeited during the year	**—**	**—**	—	—
Exercised during the year	**—**	**—**	—	—
Expired during the year	**—**	**—**	—	—
At 31 December	**7.62**	**20,000**	7.62	20,000

35. Share incentive scheme (continued)

Share option scheme adopted by the Company (continued)

The fair value of the share options at the grant date is estimated using a binomial option pricing model, taking into account the terms and conditions upon which the share options were granted. The contractual life of each option granted is ten years. There is no cash settlement of the share options. The fair value of share options granted on 2 February 2017 was estimated on the date of grant using the following assumptions:

Dividend yield (%)	—
Expected volatility (%)	39.63
Risk-free interest rate (%)	1.91
Expected contractual life of share options (years)	10.00
Underlying share price (RMB)	6.45
Exercise price of each share option (RMB)	6.73

At the date of approval of the consolidated financial statements, the Company had 20,000,000 share options outstanding under the Share Option Scheme, which represented approximately 0.79% of the Company's shares in issue as at that date.

There were no share options granted during the year (2017: HKD66,287,000). The Group had recorded share-based payment expenses of RMB17,487,000 in the statement of profit or loss during the year ended 31 December 2018 (2017: RMB21,112,000).

Warrants granted by the Company

On 1 January 2015, the Company issued warrants to Shanghai Junling Investment Partnership (Limited Partnership), which was beneficially owned by certain management members of Sunshine Guojian (the "**Sunshine Guojian Warrants**"), in which the Group held an approximately 6.96% equity interest. The Sunshine Guojian Warrants entitled the holders to purchase 1,128.82033 ordinary shares of the Company at an exercise price of USD1.00 for each warrant. Pursuant to the subdivision of the par value of the Company's authorised shares from USD1.00 per share to USD0.00001 per share on 4 February 2015, the number of shares had been changed to 112,882,033 ordinary shares of the Company exercisable by the Sunshine Guojian Warrants and the exercise price from USD1.00 per share to USD0.00001 per share.

The Sunshine Guojian Warrants would vest and become exercisable upon meeting certain vesting and non-vesting conditions. If the vesting conditions were not met, the warrants would lapse.

35. Share incentive scheme (continued)

Warrants granted by the Company (continued)

The fair value at the grant date is estimated using the Black-Scholes option pricing model, taking into account the terms and conditions upon which the warrants were granted. The contractual life of each option granted is three and a half years. There is no cash settlement of the warrants. The fair value of warrants granted on 1 January 2015 was estimated on the date of grant using the following assumptions:

Dividend yield (%)	—
Expected volatility (%)	37.50
Risk-free interest rate (%)	1.10
Contractual life of warrants (years)	3.50
Underlying share price (RMB)	70.50
Exercise price of each warrant (RMB)	0.00006

On the date of grant, the fair values of each of the Sunshine Guojian Warrants with the probability of meeting the non-vesting conditions of 30% and 50% were RMB19.37 and RMB32.26 respectively.

During the year, there were no expenses recognised in the statement of profit or loss (2017: Nil).

There was no new grant of warrants during the year (2017: Nil).

No exerciseable warrants vested during the year (2017: Nil). Warrants exercisable for 4,917,661 ordinary shares were exercised at an exercise price of USD0.00001 per share during the year, resulting in the issue of 4,917,661 ordinary shares of the Company and new share capital and share premium of RMB335 and RMB3,596,000, respectively (before issue expenses), as further detailed in note 34 to the financial statements (2017: RMB1,000 and RMB4,741,000).

At the end of the reporting period, the Sunshine Guojian Warrants expired; and the remainder of the vested Sunshine Guojian Warrants, exercisable for 28,040,036 Shares, had been forfeited.

The share price at the date of exercise of warrants during the year was HKD16.14 per share (2017: HKD9.74 per share).

36. Reserves

The amounts of the Group's reserves and the movements therein are presented in the consolidated statement of changes in equity.

Statutory surplus reserves

Pursuant to the relevant PRC rules and regulations, those PRC subsidiaries which are domestic enterprises in the PRC as mentioned in note 1 to the financial statements are required to transfer no less than 10% of their profits after taxation, as determined under PRC accounting regulations and their respective articles of association, to the statutory reserve until the reserve balance reaches 50% of the registered capital. The transfer to this reserve must be made before the dividend distribution to shareholders.

37. Notes to the consolidated statement of cash flows

Changes in liabilities arising from financing activities

	Bank and other borrowings RMB'000	Convertible bonds RMB'000
At 1 January 2017	3,059,143	—
Changes from financing cash flows	(832,923)	2,323,746
Equity component of convertible bonds	—	(47,133)
Interest accrual	—	5,472
Exchange realignment	(91,963)	(10,211)
At 31 December 2017	2,134,257	2,271,874
At 1 January 2018	**2,134,257**	**2,271,874**
Changes from financing cash flows	**(1,188,852)**	**—**
Interest accrual	**—**	**13,918**
Exchange realignment	**49,945**	**13,529**
At 31 December 2018	**995,350**	**2,299,321**

38. Contingent liabilities

As at 31 December 2018, neither the Group nor the Company had any significant contingent liabilities (2017: Nil).

39. Pledge of assets

Details of the Group's interest-bearing bank and other borrowings which are secured by the assets of the Group are included in note 31 to the financial statements.

40. Operating lease arrangements

Operating lease commitments — as lessee

The Group leases certain of its office properties under operating lease arrangements. Leases for properties are negotiated for terms ranging from one to five years. At 31 December 2018, the Group had total future minimum lease payments under non-cancellable operating leases falling due as follows:

	2018	2017
	RMB'000	RMB'000
Within one year	**4,406**	6,578
In the second to fifth years, inclusive	**7,445**	8,718
	11,851	15,296

41. Commitments

In addition to the operating lease commitments detailed in note 40 above, the Group had the following capital commitments as at the end of the reporting period:

	2018	2017
	RMB'000	RMB'000
Contracted, but not provided for:		
Plant and machinery	**149,549**	93,536
Capital contribution payable to funds	**746,667**	—
Initial payment on collaboration	**56,632**	—
	952,848	93,536

42. Related party transactions

Details of the Group's principal related parties are as follows:

Company	Relationship
Century Sunshine Limited ("**Century Sunshine**")	Ultimate shareholder of the Company
Sunshine Bio-Pharmaceutical Fund	Joint venture
Sunshine Medical Industry Fund	Associate
Refuge	Associate
Shanghai Companion	Associate
Beijing Huansheng Medical Investment Co., Ltd. ("**Beijing Huansheng**")	Under significant influence of a director of the Company and owned by certain middle management personnel of the Group
Liaoning Sunshine Technology Development Co., Ltd. ("**Liaoning Sunshine Technology**")	Subsidiary of Beijing Huansheng
Zhejiang Sunshine	Under significant influence of a director and key management personnel of the Company
Medical Recovery Limited ("**Medical Recovery**")	Under control of directors of the Company

(a) The Group had the following transactions with related parties during the year:

	Notes	**2018** **RMB'000**	2017 RMB'000
Convertible loan including interest to Zhejiang Sunshine	21(a)	**36,853**	79,517
Loans including interest to Liaoning Sunshine Technology	(i)	**32,170**	31,126
Loans to Beijing Huansheng	(ii)	**10,695**	10,260
Loans to Zhejiang Sunshine	(iii)	**61,308**	30,372
Loans to Medical Recovery	(iv)	**209,329**	—
Loans to Sunshine Bio-Pharmaceutical Fund	(v)	**100**	—
Loan from Century Sunshine	(vi)	**70,691**	109,605
Loans to Zhejiang Sunshine	(vii)	**1,100**	—
Guarantee provided to Beijing Huansheng	(viii)	**—**	5,000

42. Related party transactions (continued)

(a) The Group had the following transactions with related parties during the year: (continued)

Notes:

(i) On 7 December 2016 and 23 December 2016, Sunshine Guojian extended loans, the principal amounts of which were RMB20,000,000 and RMB10,000,000, to Liaoning Sunshine Technology at an annual interest rate of 3.85%. Pursuant to supplemental agreements dated on 7 March 2018 and 23 March 2018, the maturity dates were extended to 6 March 2019 and 22 March 2019, respectively. The annual interest rate was changed to 3.48%. The accrued interest for the year ended 31 December 2018 was RMB1,044,000 (2017: RMB1,126,000).

(ii) On 26 May 2017, Zhejiang Wansheng provided a loan, the principal amount of which is RMB10,000,000, to Beijing Huansheng at an interest rate of 4.35% per annum with the maturity date on 26 May 2018. Pursuant to a supplemental agreement dated on 27 May 2018, the maturity date was extended to 26 May 2019. During the year ended 31 December 2018, Beijing Huansheng repaid interest of RMB477,000 to Zhejiang Wansheng. The accrued interest for the year ended 31 December 2018 was RMB435,000 (2017: RMB260,000).

(iii) On 11 August 2017 and 18 September 2017, Shenyang Sunshine provided entrusted loans, the principal amounts of which are RMB20,000,000 and RMB10,000,000, to Zhejiang Sunshine at an annual interest rate of 3.48% with the maturity dates on 11 August 2018 and 18 September 2018, respectively. Pursuant to supplemental agreements dated on 9 August 2018, the maturity dates were extended to 8 August 2019. On 25 September 2018, Shenyang Sunshine provided a loan, the principal amount of which is RMB30,000,000, to Zhejiang Sunshine at an interest rate of 3.48% per annum with the maturity date on 25 September 2019. During the year ended 31 December 2018, Zhejiang Sunshine repaid interests of RMB704,000 to Shenyang Sunshine. The accrued interest for the year ended 31 December 2018 was RMB936,000 (2017: RMB372,000).

(iv) On 17 July 2018, Strategic entered into a loan agreement with Medical Recovery to provide Medical Recovery a loan, the principal amount of which is USD30,000,000 at an interest rate of 4% per annum with the maturity date on 16 July 2019. The accrued interest for the year ended 31 December 2018 was RMB3,432,000.

(v) On 24 December 2018, Shenyang Sunshine provided a loan, the principal amount of which is RMB100,000, to Sunshine Bio-Pharmaceutical Fund.

(vi) The Group repaid Century Sunshine a loan of USD5,500,000 during 2017, which is equivalent to RMB37,135,000. As at 31 December 2018, the balance was approximately RMB70,691,000.

(vii) On 8 August 2018, Xing Sheng provided a loan, the principal amount of which is RMB1,100,000 to Zhejiang Sunshine, with no maturity date and interest rate.

(viii) On 18 November 2016, the Group provided a financial guarantee to Beijing Huansheng in favour of bank borrowings amounting to RMB5,000,000 on a term of six months. The guarantee expired on 18 May 2017.

42. Related party transactions (continued)

(b) Outstanding balances with related parties:

The Group had the following significant balances with its related parties at the end of the reporting period:

	2018 RMB'000	2017 RMB'000
Due from related parties		
Current portion		
Medical Recovery	**207,236**	—
Zhejiang Sunshine	**44,216**	30,372
Liaoning Sunshine Technology	**31,222**	31,126
Beijing Huansheng	**10,115**	10,260
Directors and senior management	**7,336**	7,336
Sunshine Bio-Pharmaceutical Fund	**100**	—
	300,225	79,094
Non-current portion		
Zhejiang Sunshine	**28,758**	35,372

	2018 RMB'000	2017 RMB'000
Due to related parties		
Current portion		
Ascentage Pharma	**—**	8,799
Century Sunshine	**70,691**	67,302
Ascentage International	**—**	13
	70,691	76,114

(c) Compensation of key management personnel of the Group:

Key management compensation is detailed in notes 8 and 9 to the financial statements.

43. Financial instruments by category

The carrying amounts of each of the categories of financial instruments at the end of the reporting period are as follows:

2018

Financial assets

	Financial assets at fair value through profit or loss (Designated as such upon initial recognition) RMB'000	Financial assets at fair value through other comprehensive income RMB'000	Financial assets at amortised cost RMB'000	Total RMB'000
Equity investments designated at fair value through other comprehensive income	–	346,118	–	346,118
Financial assets at fair value through profit or loss	35,260	–	–	35,260
Derivative financial instrument	16	–	–	16
Financial assets included in prepayments, other receivables and other assets	–	–	590,428	590,428
Trade and notes receivables	–	–	1,483,885	1,483,885
Long-term receivables	–	–	28,758	28,758
Cash and cash equivalents	–	–	1,792,605	1,792,605
Pledged deposits	–	–	14,289	14,289
	35,276	346,118	3,909,965	4,291,359

43. Financial instruments by category (continued)

2018 (continued)

Financial liabilities

	Financial liabilities at amortised cost RMB'000
Trade and bills payables	**112,915**
Financial liabilities included in other payables and accruals	**284,060**
Interest-bearing bank and other borrowings	**995,350**
Convertible bonds	**2,299,321**
	3,691,646

2017

Financial assets

	Financial assets at fair value through profit or loss (Designated as such upon initial recognition) RMB'000	Loans and receivables RMB'000	Available-for-sale financial assets RMB'000	Total RMB'000
Long-term receivables	—	35,372	—	35,372
Available-for-sale investments	—	—	752,897	752,897
Trade and notes receivables	—	1,324,084	—	1,324,084
Financial assets included in prepayments, other receivables and other assets	—	364,971	—	364,971
Derivative financial instrument	1,322	—	—	1,322
Cash and cash equivalents	—	2,398,621	—	2,398,621
Pledged deposits	—	11,845	—	11,845
	1,322	4,134,893	752,897	4,889,112

43. Financial instruments by category (continued)

2017 (continued)

Financial liabilities

	Financial liabilities at amortised cost RMB'000
Trade and bills payables	274,568
Financial liabilities included in other payables and accruals	188,542
Financial liabilities included in other non-current liabilities	12,350
Interest-bearing bank and other borrowings	2,134,257
Convertible bonds	2,271,874
	4,881,591

44. Transfers of financial assets

As at 31 December 2018, the Group endorsed certain notes receivable (the "**Derecognised Bills**") accepted by major banks in Mainland China (the "**PRC banks**") to certain of its suppliers in order to settle the trade payables due to such suppliers with a carrying amount totalling approximately RMB9,362,000 (2017: RMB50,656,000). The Derecognised Bills had a maturity of one to six months at the end of the reporting period. In accordance with the Law of Negotiable Instruments in the PRC, the holders of the Derecognised Bills have a right of recourse against the Group if the PRC banks default (the "**Continuing Involvement**"). In the opinion of the directors, the Group has transferred substantially all risks and rewards relating to the Derecognised Bills. Accordingly, it has derecognised the full carrying amounts of the Derecognised Bills and the associated trade payables. The maximum exposure to loss from the Group's Continuing Involvement in the Derecognised Bills and the undiscounted cash flows to repurchase these Derecognised Bills is equal to their carrying amounts. In the opinion of the directors, the fair values of the Group's Continuing Involvement in the Derecognised Bills are not significant.

During the year ended 31 December 2018, the Group had not recognised any gain or loss on the date of transfer of the Derecognised Bills. No gains or losses were recognised from the Continuing Involvement, both during the year or cumulatively. The endorsements had been made evenly throughout the year.

45. Fair value and fair value hierarchy of financial instruments

The carrying amounts and fair values of the Group's financial instruments, other than those with carrying amounts that reasonably approximate to fair values, are as follows:

	Carrying amounts		Fair values	
	31 December 2018	31 December 2017	**31 December 2018**	31 December 2017
	RMB'000	RMB'000	**RMB'000**	RMB'000
Financial assets				
Equity investments designated at fair value through other comprehensive income	**346,118**	—	**346,118**	—
Financial assets at fair value through profit or loss	**35,260**	—	**35,260**	—
Available-for-sale investments	**—**	752,897	**—**	752,897
Derivative financial instrument	**16**	1,322	**16**	1,322
Long-term receivables	**28,758**	35,372	**28,758**	35,372
	410,152	789,591	**410,152**	789,591
Financial liabilities				
Interest-bearing bank and other borrowings: non-current	**425,022**	1,046,791	**429,965**	1,063,419
Convertible bonds	**2,299,321**	2,271,874	**2,299,321**	2,271,874
	2,724,343	3,318,665	**2,729,286**	3,335,293

Management has assessed that the fair values of cash and cash equivalents, pledged deposits, trade and notes receivables, trade and bills payables, financial assets included in prepayments, other receivables and other assets, financial liabilities included in other payables and accruals, the current portion of interest-bearing bank and other borrowings approximate to their carrying amounts largely due to the short term maturities of these instruments.

The Group's finance department headed by the finance manager is responsible for determining the policies and procedures for the fair value measurement of financial instruments. The finance manager reports directly to the chief financial officer and the audit committee. At each reporting date, the finance department analyses the movements in the values of financial instruments and determines the major inputs applied in the valuation. The valuation is reviewed and approved by the chief financial officer. The valuation process and results are discussed with the audit committee twice a year for interim and annual financial reporting.

The fair values of the financial assets and liabilities are included at the amount at which the instrument could be exchanged in a current transaction between willing parties, other than in a forced or liquidation sale.

45. Fair value and fair value hierarchy of financial instruments (continued)

The following methods and assumptions were used to estimate the fair values:

The fair values of the non-current portion of interest-bearing bank and other borrowings and convertible bonds have been calculated by discounting the expected future cash flows using rates currently available for instruments with similar terms, credit risk and remaining maturities. The Group's own non-performance risk for interest-bearing bank and other borrowings as at 31 December 2018 was assessed to be insignificant. The fair value of the liability portion of the convertible bonds is estimated by discounting the expected future cash flows using an equivalent market interest rate for a similar convertible bond with consideration of the Group's own non-performance risk.

The fair values of listed equity investments are based on quoted market prices. The fair values of unlisted equity investments designated at fair value through other comprehensive income, which were previously classified as available-for-sale equity investments, have been estimated using a market-based valuation technique based on assumptions that are not supported by observable market prices or rates. The valuation requires the directors to determine comparable public companies (peers) based on industry, size, leverage and strategy, and calculates an appropriate price multiple, such as enterprise value to earnings before interest, taxes, depreciation and amortisation ("**EV/EBITDA**") multiple and price to earnings ("**P/E**") multiple, for each comparable company identified. The multiple is calculated by dividing the enterprise value of the comparable company by an earnings measure. The trading multiple is then discounted for considerations such as illiquidity and size differences between the comparable companies based on company-specific facts and circumstances. The discounted multiple is applied to the corresponding earnings measure of the unlisted equity investments to measure the fair value. The directors believe that the estimated fair values resulting from the valuation technique, which are recorded in the consolidated statement of financial position, and the related changes in fair values, which are recorded in other comprehensive income, are reasonable, and that they were the most appropriate values at the end of the reporting period.

For the fair value of the unlisted equity investments at fair value through other comprehensive income, which were previously classified as available-for-sale equity investments, management has estimated the potential effect of using reasonably possible alternatives as inputs to the valuation model and has quantified this as a reduction in fair value of approximately RMB809,000, using less favourable assumptions, and an increase in fair value of approximately RMB798,000, using more favourable assumptions.

The Group invests in unlisted investments, which represent treasury or cash management products issued by banks in Mainland China. The Group has estimated the fair value of these unlisted investments by using a discounted cash flow valuation model based on the market interest rates of instruments with similar terms and risks.

The fair value of derivative financial instrument is measured using the Black-Scholes option pricing model which incorporates various market observable inputs including risk-free interest rate, quoted market price of the underlying stock and dividend ratio.

45. Fair value and fair value hierarchy of financial instruments (continued)

Below is a summary of significant unobservable inputs to the valuation of financial instruments together with a quantitative sensitivity analysis as at 31 December 2018 and 2017:

	Valuation technique	Significant unobservable input	Range	Sensitivity of fair value to the input
Unlisted equity investments (2017: Unlisted available-for-sale equity investments)	Market approach	Discount for lack of marketability	2018: -10% to 10% (2017: -10% to 10%)	10% (2017: 10%) increase/decrease in discount would result in decrease/ increase in fair value of RMB809,000 and RMB798,000 respectively (2017: RMB72,000)

The discount for lack of marketability represents the amounts of premiums and discounts determined by the Group that market participants would take into account when pricing the investments.

45. Fair value and fair value hierarchy of financial instruments (continued)

Fair value hierarchy

The following tables illustrate the fair value measurement hierarchy of the Group's financial instruments.

Assets measured at fair value:

As at 31 December 2018

	Fair value measurement using			
	Quoted prices in active markets (Level 1) RMB'000	Significant observable inputs (Level 2) RMB'000	Significant unobservable inputs (Level 3) RMB'000	Total RMB'000
Equity investments designated at fair value through other comprehensive income:				
Listed equity investments	**32,872**	**—**	**—**	**32,872**
Unlisted equity investments	**—**	**—**	**313,246**	**313,246**
Financial assets at fair value through profit or loss: Treasury or cash management products	**—**	**35,260**	**—**	**35,260**
Derivative financial instrument	**—**	**16**	**—**	**16**
	32,872	**35,276**	**313,246**	**381,394**

As at 31 December 2017

	Fair value measurement using			
	Quoted prices in active markets (Level 1) RMB'000	Significant observable inputs (Level 2) RMB'000	Significant unobservable inputs (Level 3) RMB'000	Total RMB'000
Available-for-sale investments:				
Listed equity investments	32,810	—	—	32,810
Unlisted equity investments	—	—	48,333	48,333
Treasury or cash management products	—	671,754	—	671,754
Derivative financial instrument	—	1,322	—	1,322
	32,810	673,076	48,333	754,219

45. Fair value and fair value hierarchy of financial instruments (continued)

Fair value hierarchy (continued)

Assets measured at fair value: (continued)

The movements in fair value measurements within Level 3 during the year are as follows:

	2018 RMB'000	2017 RMB'000
Equity investments designated at fair value through other comprehensive income/available-for-sale investments — unlisted:		
At 1 January	**48,333**	50,000
Effect of adoption of IFRS 9	**—**	—
At 1 January	**48,333**	50,000
Purchases	**32,738**	—
Reclassification from investment in an associate	**221,982**	—
Total gains/(losses) recognised in other comprehensive income	**10,084**	(1,667)
Exchange realignment	**109**	—
At 31 December	**313,246**	48,333

The Group did not have any financial liabilities measured at fair value as at 31 December 2018 and 31 December 2017.

During the year, there were no transfers of fair value measurements between Level 1 and Level 2 and no transfers into or out of Level 3 for both financial assets and financial liabilities (2017:Nil).

45. Fair value and fair value hierarchy of financial instruments (continued)

Fair value hierarchy (continued)

Assets for which fair values are disclosed:

As at 31 December 2018

	Fair value measurement using			
	Quoted prices in active markets (Level 1) RMB'000	**Significant observable inputs (Level 2) RMB'000**	**Significant unobservable inputs (Level 3) RMB'000**	**Total RMB'000**
Long-term receivables	**—**	**28,758**	**—**	**28,758**

As at 31 December 2017

	Fair value measurement using			
	Quoted prices in active markets (Level 1) RMB'000	Significant observable inputs (Level 2) RMB'000	Significant unobservable inputs (Level 3) RMB'000	Total RMB'000
Long-term receivables	—	35,372	—	35,372

45. Fair value and fair value hierarchy of financial instruments (continued)

Fair value hierarchy (continued)

Liabilities for which fair values are disclosed:

As at 31 December 2018

	Fair value measurement using			
	Quoted prices in active markets (Level 1) RMB'000	Significant observable inputs (Level 2) RMB'000	Significant unobservable inputs (Level 3) RMB'000	Total RMB'000
Interest-bearing bank and other borrowings	—	429,965	—	429,965
Convertible bonds	—	2,299,321	—	2,299,321
	—	2,729,286	—	2,729,286

As at 31 December 2017

	Fair value measurement using			
	Quoted prices in active markets (Level 1) RMB'000	Significant observable inputs (Level 2) RMB'000	Significant unobservable inputs (Level 3) RMB'000	Total RMB'000
Interest-bearing bank and other borrowings	—	1,063,419	—	1,063,419
Convertible bonds	—	2,271,874	—	2,271,874
	—	3,335,293	—	3,335,293

46. Financial risk management objectives and policies

The Group's principal financial instruments comprise cash and cash equivalents, pledged deposits, trade and notes receivables, prepayments, other receivables and other assets, trade and bills payables, other payables and accruals, interest-bearing bank and other borrowings and convertible bonds. The main purpose of these financial instruments is to raise finance for the Group's operations. The Group has various other financial assets and liabilities such as trade and notes receivables and trade and bills payables, which arise directly from its operations.

The main risks arising from the Group's financial instruments are interest rate risk, foreign currency risk, credit risk, liquidity risk and equity price risk. The board of directors and senior management meet periodically to analyse and formulate measures to manage the Group's exposure to these risks.

Interest rate risk

The Group is exposed to cash flow interest rate risk due to fluctuations in the prevailing market interest rates on cash and cash equivalents, and pledged and non-pledged deposits. Management considers that these bank balances are not sensitive to fluctuations in interest rates.

The Group's interest rate risk relates primarily to bank borrowings. The Group currently does not have an interest rate hedging policy. However, management monitors interest rate exposure and will consider hedging significant interest rate exposure should the need arise. The Group's interest rate profile as monitored by management is set out in note 31 to the financial statements.

Foreign currency risk

The Group's business is mainly located in Mainland China and most transactions are conducted in RMB. Most of the Group's assets and liabilities were denominated in RMB, except for certain bank balances denominated in USD, HKD, GBP and EUR as disclosed in note 27 and Euro-denominated convertible bonds as disclosed in note 32 to the financial statements.

The Group's assets and liabilities denominated in USD were mainly held by the Company and certain subsidiaries incorporated outside Mainland China which had USD as their functional currency, and the Group did not have material foreign currency transactions during the year.

46. Financial risk management objectives and policies (continued)

Credit risk

As at 31 December 2018, all pledged deposits and cash and cash equivalents were deposited in high quality financial institutions without significant credit risk.

The Group trades only with recognised and creditworthy third parties. It is the Group's policy that all customers who wish to trade on credit terms are subject to credit verification procedures. In addition, receivable balances are monitored on an ongoing basis and the Group's exposure to bad debts is not significant.

Maximum exposure and year-end staging as at 31 December 2018

The table below shows the credit quality and the maximum exposure to credit risk based on the Group's credit policy, which is mainly based on past due information unless other information is available without undue cost or effort, and year-end staging classification as at 31 December 2018. The amounts presented are gross carrying amounts for financial assets.

	12-month ECLs	Lifetime ECLs			
	Stage 1 RMB'000	Stage 2 RMB'000	Stage 3 RMB'000	Simplified approach RMB'000	RMB'000
Trade and notes receivables*	—	—	—	1,483,885	1,483,885
Financial assets included in prepayments, other receivables and other assets*	—	—	—	590,428	590,428
Long-term receivables*	—	—	—	28,758	28,758
Pledged deposits					
— Not yet past due	14,289	—	—	—	14,289
Cash and cash equivalents					
— Not yet past due	1,792,605	—	—	—	1,792,605
	1,806,894	—	—	2,103,071	3,909,965

* For trade and notes receivables, financial assets included in prepayments, other receivables and other assets and long-term receivables to which the Group applies the simplified approach for impairment, information based on the provision matrix is disclosed in note 24 to the financial statements.

46. Financial risk management objectives and policies (continued)

Credit risk (continued)

Maximum exposure as at 31 December 2017

The credit risk of the Group's other financial assets, which comprise cash and cash equivalents, pledges deposits, financial assets included in prepayments, other receivables and other assets, trade and notes receivables and long-term receivables, arises from default of the counterparty, with a maximum exposure equal to the carrying amounts of these instruments.

Since the Group trades only with recognised and creditworthy third parties, there is no requirement for collateral. Concentrations of credit risk are managed by customer/counterparty and by geographical region. There are no significant concentrations of credit risk within the Group as the customer bases of the Group's trade and notes receivables are widely dispersed in different regions.

Liquidity risk

The Group monitors its risk to a shortage of funds based on the maturity of its financial assets and financial liabilities and projected cash flows from operations.

The Group's objective is to maintain a balance between continuity of funding and flexibility through the use of interest-bearing bank and other borrowings and issue of new debts or equity instruments. The directors have reviewed the Group's profitability, working capital and capital expenditure requirements and determined that the Group has no significant liquidity risk.

46. Financial risk management objectives and policies (continued)

Liquidity risk (continued)

The maturity profile of the Group's financial liabilities at the end of the reporting period, based on the contractual undiscounted payments, is as follows:

Group

	2018			
	Within 3 months	**3 to 12 months**	**1 to 10 years**	**Total**
	RMB'000	**RMB'000**	**RMB'000**	**RMB'000**
Financial liabilities:				
Trade and bills payables	**92,046**	**20,028**	**841**	**112,915**
Financial liabilities included in other payables and accruals	**120,635**	**96,014**	**67,411**	**284,060**
Interest-bearing bank and other borrowings	**—**	**570,328**	**425,022**	**995,350**
Convertible bonds	**—**	**—**	**2,299,321**	**2,299,321**
	212,681	**686,370**	**2,792,595**	**3,691,646**

	2017			
	Within 3 months	3 to 12 months	1 to 10 years	Total
	RMB'000	RMB'000	RMB'000	RMB'000
Financial liabilities:				
Trade and bills payables	88,458	185,330	780	274,568
Financial liabilities included in other payables and accruals	67,705	45,928	74,909	188,542
Financial liabilities included in other non-current liabilities	—	—	12,350	12,350
Interest-bearing bank and other borrowings	100,000	987,466	1,046,791	2,134,257
Convertible bonds	—	—	2,271,874	2,271,874
	256,163	1,218,724	3,406,704	4,881,591

46. Financial risk management objectives and policies (continued)

Equity price risk

Equity price risk is the risk that the fair values of equity securities decrease as a result of changes in the levels of equity indices and the value of individual securities. The Group is exposed to equity price risk arising from individual equity investments included in equity investments designated at fair value through other comprehensive income/ available-for-sale investments (note 20) as at 31 December 2018 and 31 December 2017. The Group's major listed equity investment during the year ended 31 December 2018 was listed on the NASDAQ Stock Market ("**NASDAQ**") and was valued at quoted market price at the end of the reporting period.

At 31 December 2018, if the quoted market price of these financial assets held by the Group had increased/ decreased by 10%, with all other variables held constant, other comprehensive income and equity would have been RMB3,254,000 (2017: RMB3,243,000) and RMB3,254,000 (2017: RMB3,243,000) higher/lower respectively as a result of the changes in fair value of these financial assets.

Capital management

The primary objectives of the Group's capital management are to safeguard the Group's ability to continue as a going concern and to maintain healthy capital ratios in order to support its business and maximise shareholders' value.

The Group manages its capital structure and makes adjustments to it in light of changes in economic conditions. To maintain or adjust the capital structure, the Group may issue new shares or debt instruments. No changes were made in the objectives, policies or processes for managing capital during the year ended 31 December 2018.

The Group monitors capital using a gearing ratio, which is interest-bearing bank and other borrowings and convertible bonds divided by the total equity.

The gearing ratio as at the end of the reporting period was as follows:

	2018	2017
	RMB'000	RMB'000
Interest-bearing bank and other borrowings	**995,350**	2,134,257
Convertible bonds	**2,299,321**	2,271,874
	3,294,671	4,406,131
Total equity	**8,907,370**	7,629,646
Gearing ratio	**37.0%**	57.8%

47. Events after the reporting period

There was no significant events after the reporting period.

48. Statement of financial position of the company

Information about the statement of financial position of the Company at the end of the reporting period is as follows:

	2018 RMB'000	2017 RMB'000
NON-CURRENT ASSETS		
Property, plant and equipment	**1,619**	1,619
Investments in subsidiaries	**3,033,570**	2,825,473
Equity investments designated at fair value through other comprehensive income	**76,115**	—
Available-for-sale investments	**—**	72,466
Total non-current assets	**3,111,304**	2,899,558
CURRENT ASSETS		
Available-for-sale investments	**—**	32,426
Equity investments designated at fair value through other comprehensive income	**32,541**	—
Prepayments, other receivables and other assets	**—**	4
Due from subsidiaries	**1,831,739**	1,699,035
Cash and cash equivalents	**152,166**	197,874
Total current assets	**2,016,446**	1,929,339
CURRENT LIABILITIES		
Trade payables	**7**	7
Other payables and accruals	**479,047**	256,772
Total current liabilities	**479,054**	256,779
NET CURRENT ASSETS	**1,537,392**	1,672,560
TOTAL ASSETS LESS CURRENT LIABILITIES	**4,648,696**	4,572,118
NON-CURRENT LIABILITIES		
Other liabilities	**—**	12,350
Total non-current liabilities	**—**	12,350
Net assets	**4,648,696**	4,559,768
EQUITY		
Share capital	**156**	156
Treasury shares	**(40,586)**	—
Share premium (note)	**4,304,768**	4,301,172
Other reserves (note)	**384,358**	258,440
Total equity	**4,648,696**	4,559,768

48. Statement of financial position of the company (continued)

Note:

A summary of the Company's reserves is as follows:

	Share premium RMB'000	Contributed surplus RMB'000	Available-for-sale investment revaluation reserve RMB'000	Exchange fluctuation reserve RMB'000	Retained earnings RMB'000	Total RMB'000
At 1 January 2017	4,296,431	28,842	–	345,085	163,452	4,833,810
Total comprehensive loss for the year	–	–	(2,687)	(276,984)	(15,639)	(295,310)
Equity-settled share option arrangement (note 35)	–	21,112	–	–	–	21,112
Shares issued upon exercise of warrants	4,741	(4,741)	–	–	–	–
At 31 December 2017	4,301,172	45,213	(2,687)	68,101	147,813	4,559,612
Total comprehensive income for the year	**–**	**–**	**6,708**	**215,911**	**29,716**	**252,335**
Equity-settled share option arrangement (note 35)	**–**	**17,487**	**–**	**–**	**–**	**17,487**
Dividends paid	**–**	**–**	**–**	**–**	**(140,308)**	**(140,308)**
Transfer to retained profits	**–**	**–**	**(5,796)**	**–**	**5,796**	**–**
Shares issued upon exercise of warrants (note 35)	**3,596**	**(3,596)**	**–**	**–**	**–**	**–**
At 31 December 2018	**4,304,768**	**59,104**	**(1,775)**	**284,012**	**43,017**	**4,689,126**

49. Approval of the financial statements

The financial statements were approved and authorised for issue by the board of directors on 20 March 2019.

2018 Environmental, Social and Governance Report of 3SBio Inc.

March 2019

CONTENTS

1. Corporate Social Responsibility Management

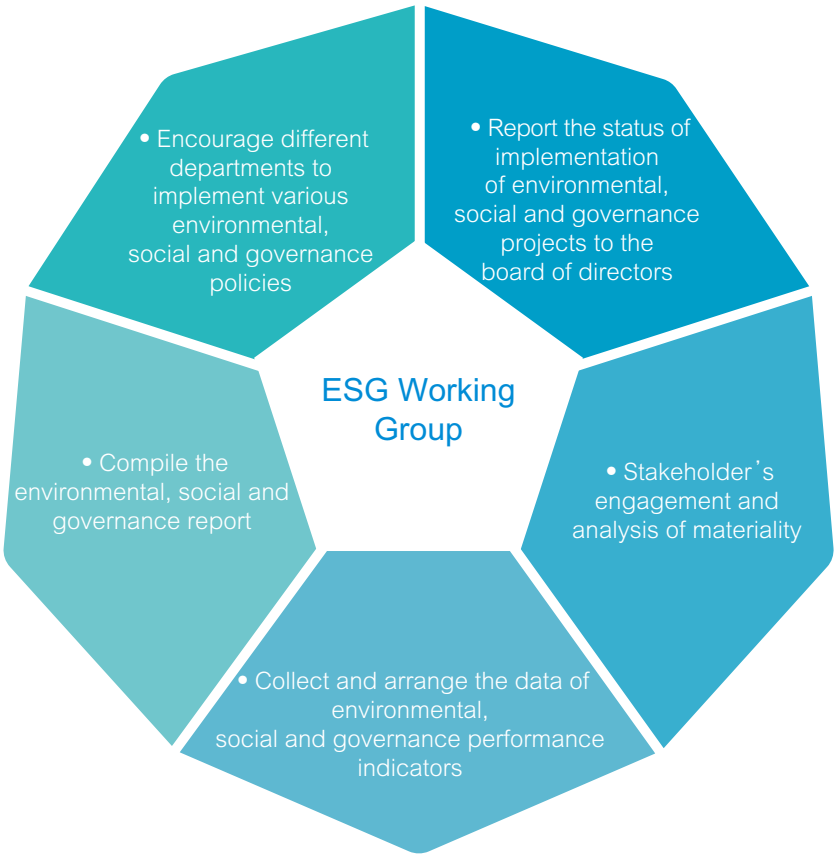
1.1 Social Responsibility Philosophy

As always, the Group firmly upholds its mission of "improving the qualities of life of patients and bringing health benefits to the human race by developing and manufacturing high quality drugs", and honors its commitment to the stakeholders, such as its shareholders, customers and consumers, the government and its staff, as well as staying true to its mission. Through relentless effort, the Group strives to provide reliable treatment tools to doctors, trustworthy medicine to patients, strong support to the reform of healthcare industry, provide more staff care and bring the hope of life to indigent patients and families by delivering the spirit of 3SBio as a pharmaceutical manufacturer and taking up the social responsibility as a corporate citizen.

ESG Working Group

The Group incorporates its social responsibility philosophy as part of the Group's strategy and daily operations. It has set up an environmental, social and governance (ESG) working group led by the secretary of the board and the Public Relations (PR) department, with different functional departments and subsidiaries involved. The Group actively assigns the responsibilities of ESG work to personnel at different levels in the ESG working group in connection with various ESG tasks, to enhance the quality of ESG report and ESG management performance in concert with an aim to promote the sustainable development of the Group.

Responsibility of ESG Working Group



1.2 Stakeholders' Engagement

By means of stakeholder's active engagement, the Group understands the demands, opinions and advice of stakeholders, such as shareholders, staff, customers and consumers (customers include hospitals, other health care institutions, doctors and other related health professionals; consumers refer to patients), suppliers, government and regulatory authorities, as well as the public and the community. It actively sets up a communication platform for stakeholders to understand and respond to the demands of different parties and incorporates the issues that the stakeholders are concerned with into the operational and decision-making process of the Company, to improve the Company's capacity in operations management and its competitiveness in sustainable development.

Major stakeholders	Issues concerned	Communication and responses
Shareholders	Economic performance, Innovative operations, Quality of the products and services, Compliance operations, Risk control	Disclosure of information by the Company, Shareholders' meetings, Investors' meetings
Customers and consumers	Responsible marketing, Anti-corruption, Customer information and privacy protection, Customer satisfaction and communication	Quality management system, Standardized training of medication use, Sales Force Effectiveness ("SFE") management system
Government and regulatory authorities	Compliance operations, Industry development, Quality of the products and services, Innovative operations	Compliance system building and management, Participation in the formulation and recommendation of policies, Scientific innovation, Protection of intellectual property rights
Suppliers	Management of supply chain's sustainable development, Innovative operations, Compliance operations, Industry development	Standardized supplier management system, Transparent and fair procurement, Synergetic development
Employees	Interests and benefits of employees, Health and safety of employees, Development and training of employees	Labor union and workers' congress, Environment, Health and Safety ("EHS") management system, Regular training, Examination and promotion
Public and the community	Green manufacturing, Emissions management, Energy utilization, Community and public welfare, Anti-corruption	Public welfare projects, Environmental impact analysis and planning control, the right to veto over any non-environmental friendly projects

Analysis of Material Topics

In accordance with the procedures of identification, evaluation and selection and based on our own business and operational characteristics with reference to the experience of peers in Mainland China and overseas, the Group conducted an analysis of material topics. It has identified the important environmental, social and governance topics that the Group's stakeholders are concerned about, which are disclosed in this report.

In 2017, the Group adopted the form of questionnaire survey as a way of stakeholders' engagement and collected feedbacks from a total of 95 stakeholders. In 2018, combined with experts' insights, the Group analyzed and prioritized the importance of the topics after due consideration of the demands and concerns of stakeholders.

Procedures of Analysis of Material Topics

Identification of Topics

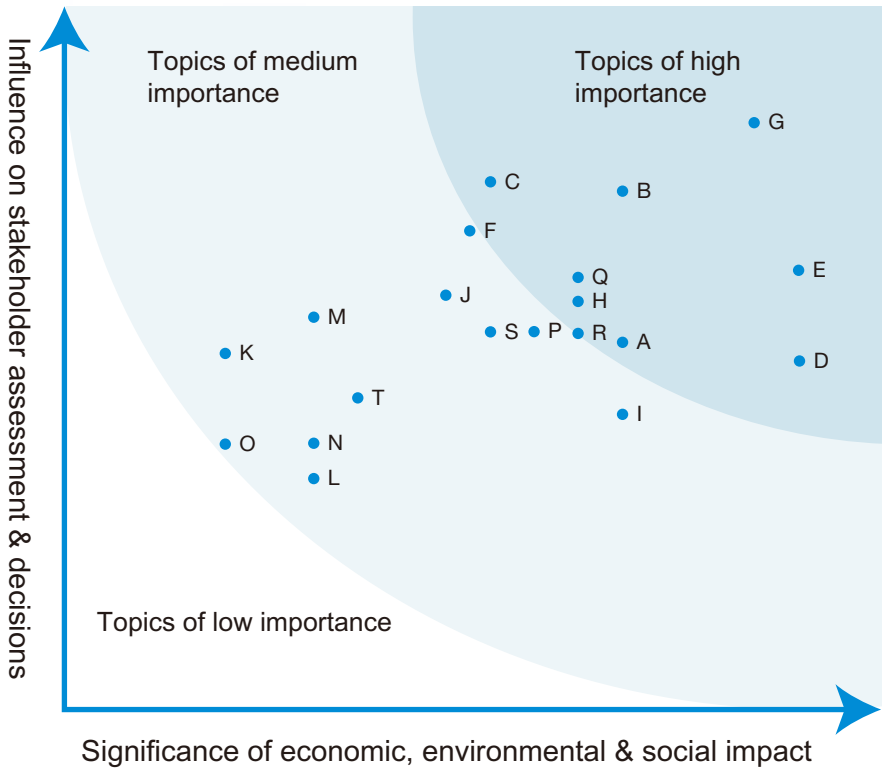
- According to ESG Reporting Guide of the Hong Kong Stock Exchange, peer benchmarking and the Company's condition of operations, the Group has identified 20 material topics

Stakeholders' Engagement

- The Group has received feedbacks from 95 stakeholders in total through questionnaires in the questionnaire survey conducted among stakeholders

Analysis of Materiality

- Based on the results of stakeholders' questionnaire survey combined with experts' insights, the Group will analyze and prioritize the materiality of various topics



Matrix of 3SBio's Material Topics

- A Risk control
- B Compliance operations
- C Anti-corruption
- D Economic performance
- E Innovative operations
- F Industry development
- G Quality of the products and services
- H Responsible marketing
- I Customer communication and satisfaction
- J Customer interests and information protection
- K Energy utilization
- L Water utilization
- M Pollutant discharge
- N Climate change mitigation and adaptation
- O Preventing child labor and forced labor
- P Interests and welfare of employees
- Q Health and safety of employees
- R Development and training of employees
- S Management of supply chain and sustainable development
- T Community and public welfare

1.3 Social Recognition

Honors	Issued by
3SBio Inc.	
Top 20 Most Competitive Listed Company in the PRC Pharmaceutical Industry of 2018	China Pharmaceutical Enterprises Association, E Medicine Manager (E藥經理人), Hejun Consultation (和君諮詢)
Most Socially Responsible Listed Company	Zhitongcaijing, Royal Flush Finance
Shenyang Sunshine	
Innovative Pharmaceutical Enterprise in China of 2018	China State Institute of Pharmaceutical Industry
Best Corporate Management Award of 2018	Shenyang Association of Small and Medium Enterprises
Top 100 Enterprises in the PRC Pharmaceutical Industry of 2017	Medical Pharmaceutical Chamber of the All-China Federation of Industry & Commerce
Top 50 Enterprises with Growth Potentials in the PRC Pharmaceutical Industry of 2017	Medical Pharmaceutical Chamber of the All-China Federation of Industry & Commerce
Top 100 Enterprises in the PRC Pharmaceutical Industry of 2017	China National Pharmaceutical Industry Information Center
Charitable Enterprise Award	Chinese Society of Cardiothoracic and Vascular Anesthesiology
Entity Membership of Chinese Society of Cardiothoracic and Vascular Anesthesiology	Chinese Society of Cardiothoracic and Vascular Anesthesiology

Honors	Issued by
Zhejiang Wansheng	
Awarded the Third Prize in Science and Technology Progress of Zhejiang Province for The research and industrialization of Tacrolimus Preparations	Science Technology Department of Zhejiang Province
Awarded the Second Prize in Science and Technology Progress of Hangzhou for The research and industrialization of Tacrolimus Preparations	Hangzhou Municipal Science and Technology Bureau
"Kewi Gels Research Project" awarded Significant Innovative Project of Hangzhou Municipality	Hangzhou Municipal Science and Technology Bureau
Industry-study-research Cooperation Awards for Promoting Scientific and Technological Innovation to Accelerate the Transformation of Scientific Results of Lin'an	Li'nan District Science and Technology Bureau
Hangzhou Trustworthy Canteen for Visitors at Municipal Level	Hangzhou Federation of Trade Unions, Market Supervision and Administration Bureau of Hangzhou Municipality
Sciprogen	
Shenzhen's Renowned Brand	Shenzhen Evaluation Committee of Renowned Brands
National High and New Technology Enterprise	Science and Technology Innovation Committee of Shenzhen Municipality, Finance Commission of Shenzhen Municipality, Shenzhen State Tax Service (深圳市國家税務局), Shenzhen Local Tax Service (深圳市地方税務區)

Honors	Issued by
Sunshine Guojian	
"Bioprocessing Excellence Awards of the Year", "Best CMO in China" of 2018	IMAPAC
Shanghai Enterprise of Observing Contract and Valuing Credit of 2016–2018	Shanghai Contract Credit Web
Shanghai Pharmaceutical Manufacturer of Quality Credit Rating A of 2017	Shanghai Association for Quality
Model Staff Home	All-China Federation of Trade Unions

2. Compliance in Operations

The Group takes compliance operations as the fundamental guarantee of corporate development and holds fast to the principle of "integrity, standardization, transparency and fairness" during the business operation. The Group places importance on the formation of a compliance culture and anti-corruption efforts. It has formulated rules and regulations at the group-level, which expressly sets out the responsibilities at different corporate levels, in order to promote the stable operation and sustainable development of the Company and its subsidiaries.

2.1 Formulation of a compliance culture

Internal compliance management and assessment

The Group has formed a comprehensive risk management system with group strategy as the core and compliance as the starting point. It has formulated the Compliance Management System at the group-level and Code of Conduct and Ethics of Employees which is applicable to all employees. The Group has set up a compliance committee responsible for supervising the overall status of compliance management, as well as by means of integrated scorecard for staff performance compliance (IPCA), "Integrity Ambassador Scheme "and compliance training to raise the compliance awareness of all personnel.

In 2018, the Group further strengthened the systemization and standardization construction of the risk management system, taking the compliance management before, during and after an event into regular compliance scorecard as an assessment on staff performance. In addition, it optimizes the handling mechanism of non-compliant behavior, which further improved the effectiveness of compliance management. The Group

continuously optimizes and perfects the system of compliance integrated scorecard by extending the scope of assessment incorporated in the scorecard. It has incorporated the staff members at levels above marketing center director into the scorecard assessment.

Compliance Training

The Group has set up and strictly implemented a compliance training system. Since joining 3SBio Inc., a staff member will take compliance-related trainings and exams at different stages. The status of staff members' participation in compliance training will be incorporated into the "staff performance compliance scorecard" as an assessment. In 2018, the Group conducted a total of 184 offline compliance training; contents of the trainings include compliance culture, compliance system and elaboration on "compliance scorecard", etc. The targets of compliance training are mostly staff at sales centers, while covering all departments of the Group. During 2018, participating headcount of compliance training amounted to 7,487.

Moreover, in order to effectively promote the philosophy of integrity and compliance, the Group continuously carries out the "Integrity Ambassador Scheme" to let the Integrity Ambassadors take a positive role in publicizing the compliance-related policies of the Group, which guides and enhances the compliance of business conducts of team personnel. In 2018, the Group held two Integrity Ambassadors Communication Meetings and provided trainings to the Integrity Ambassadors, in which the ambassadors were supervised and urged on to promulgate the compliance policies, promote compliant marketing, deliver compliance messages and create a compliance atmosphere in the applicable region.

A Series of Activities for the Year of Compliance Culture

In 2018, a series of activities for 3SBio's year of compliance culture include six components, namely integrity ambassador communication meeting, office information security management, system information security risk management, compliant handling of crisis, compliance training for regional integrity ambassador and compliance knowledge contest.

Among the above, the activity for compliant handling of crisis was this year's special activity. The activity was divided into three stages of crisis survey, upgrade of compliance system and crisis training drill. During the six-month activity, staff members learnt the basic theoretical knowledge of crises, got familiar with the Group's compliance crisis management system, took part in the specific role-playing drill, all of which raised the compliance awareness of the staff members and their ability in compliant handling.

2.2 Anti-corruption

In accordance with laws and regulations such as *Law of the People's Republic of China on Donations for Public Welfare*, *Criminal Law of the People's Republic of China*, and *Provisions On the Establishment Of Informous Records Of Commercial Bribery in the Field Of Pharmaceutical Purchase And Sales*, the Group has formulated the Anti-corruption and Anti-bribery Policy, and Giving, Sponsoring, and Donation (GSD) Management Regulations to strengthen the regulation of conducts for employees in providing financial assistance to third party entities, so as to prevent any corruptive and bribery acts. Code of Conduct and Ethics of Employees provides for the behavioral standards of employees. It specifies the anti-bribery regulations in regard to media, to officials and to the process from the distribution center to sales to the doctors.

On the basis of the above, the Diabetes Business Unit of the Group insists on the behavioral standard of China Association of Enterprises with Foreign Investment R&D-based Pharmaceutical Association Committee (RDPAC), forming an internal and external integrated system. In 2018, the Group made amendments to Giving, Sponsor, Donation (GSD) Management Regulations in order to incorporate the approval for GSD into the assessment scope of compliance scorecard, which further strengthen the control on anti-corruption work.

As for suppliers, the Group requires the suppliers to publish compliance statements, which includes the commitments on anti-bribery, gift and entertainment and conflict of interests. In the event that a supplier does not comply with any of the commitments, the Group may terminate the cooperation with that supplier.

Commitment of suppliers of the Group on Anti-bribery, Gift and Entertainment and Conflict of Interests (Extracts)

Anti-bribery	• Suppliers undertake that they would not provide on behalf of the Group, or to provide any valuable items to officials of the government, medical professionals, customers, competitors or any other third parties in order to secure any illegitimate advantages in business competition
Gift and Entertainment	• Suppliers undertake that they would not provide gifts or entertaining activities to employees of the Group
Conflict of Interests	• Suppliers undertake that they would disclose truthfully any family, equity and cooperative relationships with any employees

Supervision and Reporting System

The Group has set up a supervision and reporting system. The Code of Conduct and Ethics of Employees expressly encourages the employees to report any illegal act, disciplinary offence and non-compliance behavior, and to notify the risk compliance department and compliance committee in time. The Group undertakes to protect the whistle-blower and to ensure the independence of the management personnel who receives the reporting information and the safety of the reporting channels. Both the Group's official website and internal Office Automation (OA) system show the anti-corruption reporting hotline and reporting email address. Upon receipt of real-name reporting, risk compliance department will report to the compliance committee and the whistle-blower is promised to receive a definite response and confirmed investigation result within one month.

3. Responsibility of Environmental Protection

The Group insists on providing an environmentally-friendly and sustainable way of operation. It combines the ideal of green development into business development with practices, through ways such as optimizing the production process and increasing the resource recycling rate, it promotes the improvement on environment performance.

Overview of Laws and Regulations Relating to Responsibility of Environmental Protection

Area	Major Laws and Regulations
Environmental protection	The Environmental Protection Law of the People's Republic of China (《中華人民共和國環境保護法》), the Law of the People's Republic of China on the Prevention and Control of Environmental Pollution by Solid Waste (《中華人民共和國固體廢物污染環境防治法》), the Water Pollution Prevention Law of the People's Republic of China (《中華人民共和國水污染防治法》), Atmospheric Pollution Prevention and Control Law of the People's Republic of China (《中華人民共和國大氣污染防治法法》), the Law of the People's Republic of China on Promoting Clean Production (《中華人民共和國清潔生產促進法》), Regulations on the Administration of Construction Project Environmental Protection (《建設項目環境保護管理條例》), etc.

3.1 Environmental Management System

The Group has established an environmental management system and consistently make improvements in accordance with the requirements under Good Manufacturing Practices ("GMP"). The Group has formulated the Environmental Management Measures to provide for and standardize the environment management work in all production bases. The Group established a steering group on environmental protection, with an in-charge unit and an executive unit underlying. It is responsible for deciding on environmental protection matters, as well as managing and implementing of environmental protection measures. The respective department managers or persons-in-charge are the principal persons responsible for the environmental protection, who actively execute the accountability system for environmental protection.

Carrying the implementation responsibilities of environmental protection, each production base of the Group has set up an Environment, Health and Safety (EHS) Department as required, which formulates the direction of the environmental management of the production base, compiles regulatory documents such as the Management Manual of Environment, Health and Safety, Dangerous Waste Management Regulations and the Emergency Plan of Extraordinary Environment Event, to ensure that environment management work progresses smoothly under a comprehensive and standardized system.

Each production base implements various management system thoroughly in its production operations in order to secure the effective control on environment-related risks. In addition, each base regularly conducts internal reviews of environmental impact and carries out reviews on project-by-project basis according to management requirements. The environment management system of Sunshine Guojian has been certified to ISO14001:2015. Zhejiang Wansheng has passed the audit and acceptance inspection of clean production conducted by Hangzhou Municipal Bureau of Economy and Informatization.

Environmental Impact Analysis

Electricity and natural gas are the main resources directly or indirectly consumed in the Group's production operations. Municipal water supplies are the Group's main water resources consumed in the production operations, and the Group has no risks in locating appropriate water resources. The major discharges the Group generates are waste water, non-Greenhouse Gas (GHG) emissions, solid wastes and greenhouse gases. By consolidating environmental management, the Group improves the conditions of resource consumption and pollutant emission in the process of operation in order to achieve better management performance.

Apart from consolidating the Group's own management, it also combines the ideal of green development into the management and consideration of suppliers. In 2018, the Group also required suppliers to sign and publish the Joint Statement of Suppliers for addressing the required responsibility of suppliers in environmental protection. The EHS Department of each production base has the veto power over any non-environmentally friendly suppliers.

INPUT

Key Performance Indicators	2018
Water resources	
Water consumption (m^3)	583,031.00
Water consumption density (m^3/RMB10,000)	1.23
Energy	
Electricity consumption (MWh)	39,162.14
Electricity consumption density (MWh/RMB10,000)	0.08
Natural gas consumption (m^3)	2,538,096.50
Natural gas consumption density (m^3/RMB10,000)	5.34
Petrol consumption of owned vehicles (L)	78,163.81
Diesel consumption of owned vehicles (L)	8,237.00
Packing materials	
Total volumes of packing materials used in ex-factory delivery (ton)	1,578.08

Office administration, production, and research and development

OUTPUT

Key Performance Indicators	2018
Non-GHG Emissions, waste water	
Waste gas discharge (m^3)	26,793,008.00
Industrial waste water discharge (m^3)	207,077.00
Greenhouse Gas	
Greenhouse Gas emission (tCO_2-eq)	33,078.95
Greenhouse Gas emission density (tCO_2-eq/RMB10,000)	0.070
Wastes	
Total volumes of hazardous wastes (ton)	379.00
Density of hazardous wastes generated (kg/RMB10,000)	0.80
Total volumes of non-hazardous wastes (ton)	349.98
Density of non-hazardous wastes generated (kg/RMB10,000)	0.74

3.2 Resources Saving

The Group upholds the principle of green development with continuous optimization on the resource usage in order to boost energy efficiency and therefore reduce the consumption of water resources, electricity and natural gas, etc. Apart from adoption of measures to save the energy consumption in the production operations, the Group also encourages the energy management and advancement in production and office administration.

In 2018, each production base actively underwent replacement of production equipment, application of energy-saving lights and sewage treatment and reuse and other energy and water saving measures, to enhance the consumption efficiency of energy and water resources.

Main measures of saving energy and water resources

Technological improvement of equipment	• Application of energy saving equipment, such as capacitance compensation cabinet, variable frequency motor, automatic control air conditioner, variable frequency pumps to reduce energy consumption in the production stage. • Addition of near-zero voltage secondary compensation capacitance compensation cabinet to the water-chilling unit of maximum power load, to enhance the quality in load power consumption with a energy reduction of 5% of total power consumption; application of variable frequency motor on other power loads to reduce energy consumption.
Energy saving of LED light	• The Group plans to gradually replace all the existing light with LED energy-saving ones. Sciprogen has replaced 100% of its lights to LED energy-saving lights. It is expected to save approximately 50% of the total electricity consumption per year, which would save over RMB100,000.
Recycling of excessive heat	• Currently, excessive heat is recycled mainly through recovery of condensed steam water. The Group uses excessive heat recycling equipment to supply the saved heat to the underground garage.
Treatment and reusing of waste water	• The Group uses the processed waste water to water the greens, and clean factories or vehicles, which improved water resources use efficiency. For example, Shenyang Sunshine has recycled 5,000 tons of waste water, and Sciprogen has recycled 520 cubic meters of water.

3.3 Reduction on the Discharge of Pollutants

Management of Waste Water

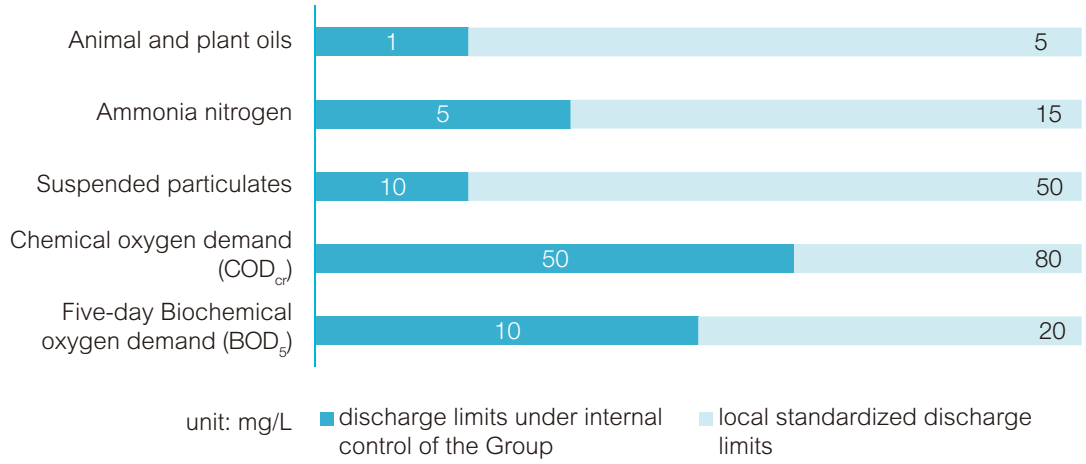
Waste water produced by the Group mainly comes from household waste water, waste liquid and waste water from production. Industrial waste liquid is of a small quantity and non-toxic. They are discharged according to relevant requirements after central collection by the production base and inactivated through soda. The household waste water and industrial waste water is processed in the sewage plant located within the factory or the industrial park, and the recyclable water is reused, and the remaining waste water is discharged to the municipal pipeline network after reaching relevant emission standards.

In 2018, in accordance with the internal pollutant control standard, each production base adopts the two-level control of source of sewage in the workshop and back-end sewage plant to reduce the discharge of waste water pollutants. It further controls the major indicators of the discharge concentration of waste water within the internal control standards that are stricter than national and regional standards.

Standard of waste water discharge and major control indicators

Type	Compliance of discharge standards	Major control indicators
Waste water	Discharge standards of water pollutants for pharmaceutical industry Bio-pharmaceutical category (GB21907-2008) Integrated standard for sewage discharge (GB8978-1996) Water quality standard for discharge of sewage into urban sewer (CJ343-2010) Integrated Discharge Standard of Sewage for Liangning Province (DB21/1627-2008) Discharge limits of water pollutants for Guangdong Province (DB44/26-2001)	Five-day Biochemical oxygen demand (BOD_5), Chemical oxygen demand (COD_{cr}), Suspended particulates, Ammonia nitrogen, Animal and plant oils, etc

Major control indicators of waste water: local standardized discharge limits and discharge limits under internal control of the Group



Note:

1. Due to the regional differences among production bases, the standardized discharge limits vary slightly. This Chart sets the Shenyang Base as an example of local discharge limits. Source of the local standardized discharge limits: Integrated Discharge Standard of Sewage for Liangning Province (DB21/1627-2008).

Management of Exhaust Gas

The Group is principally engaged in biopharmaceutical business, with Zhejiang Wansheng involved in the production of chemical medicine in relatively small quantity. The non-GHG pollutants of biopharmaceutical business only come from the small amount of odor produced in the discharge and replacement process of broth after biopharmaceutical production from fermentation comprising mainly ammoniacal and alcoholic substances. Moreover, the non-GHG emissions contains a minimal level of pollutants after purification and treatment, and therefore the impact on external environment is minimal. The non-GHG pollutants of chemicals are mainly non-methane hydrocarbon and odor emission, both of which currently are entrusted to a third party for testing to ensure a standardized discharge level. In 2018, Sciprogen installed activated carbon adsorption devices with reasonable adjustment in the operation and suspension time to further reduce the discharge of non-GHG emissions.

Standards for emissions and Major control indicators

Type	Compliance of discharge standard	Major control indicators
non-GHG emissions	《Integrated Emission Standard of Air Pollutants》(GB16297-1996) 《Emission standards for odor pollutants》(GB14554-1993)	non-methane hydrocarbon ≤120 mg/m^3 odor ≤2000(dimensionless quantity)

Management of waste

The Group produces non-hazardous solid waste, including household garbage, packaging waste, abandoned rubber plugs, and aluminum caps produced in production, a small quantity of used activated carbon produced in water production process and water treatment stations, and hazardous solid waste such as waste organic solution, waste medicine residue, used penicillin bottle and harmful sludge, expired raw and auxiliary materials and waste phenol produced by water treatment stations.

The Group's household garbage from non-hazardous waste is disposed by environmental sanitation department, whereas the used activated carbon is collected and disposed by sales companies, and the remaining wastes produced are collected and disposed centrally by qualified providers. Each production base reports the dangerous waste in warehouse weekly and hazardous waste is disposed of regularly by qualified providers. Meanwhile, defective products identified during product testing and expired products identified in storage are destroyed on the spot under the supervision of quality control department

In May 2018, Sciprogen received a rectification request from local supervision authority claiming that it misplaced hazardous waste. Both the Group and Sciprogen were very responsive on this request and Sciprogen underwent rectification in accordance with the relevant procedures. The rectification was completed on 1 June 2018 and passed the acceptance inspection by the local supervision authority. Considering this matter, the Group will be even more alert to the continuous maintenance and improvement of the solid waste management system and consolidation of system enforcement and supervision mechanism.

Discharge Standard of Waste

Type	Compliance of Discharge Standards
Solid waste	Standard for pollution control on hazardous waste storage（GB18597-2001） Standard for pollution on the storage and disposal site for general industrial solid waste (GB18599-2001)

Recycling of used electronic products by Sunshine Guojian

In 2018, the Group's subsidiary Sunshine Guojian initiated the "Beautiful China, it's my turn" campaign, which promotes the daily habits to reduce electronic waste and encourages employees to recycle used electronic products. In the campaign this year, there was a total of 120 participations that received rewards from exchanging recycled electronic waste for gifts. Over 100 used mobile phones, as well as 5 full boxes of electronic wastes of other kinds, were recycled.

4. Product and Customer Service Responsibility

Main products of the Group include TPIAO (the treatment of solid tumor chemotherapy-induced thrombocytopenia and the treatment of primary immune thrombocytopenia), Yisaipu (the treatment of rheumatoid arthritis, ankylosing spondylitis and psoriasis), EPIAO (the treatment of anemia associated with chronic kidney disease, the treatment of tumor chemotherapy-induced anemia and the reduction of allogeneic blood transfusion in surgery patients), SEPO (the treatment of anemia associated with chronic kidney disease and tumor chemotherapy), Humulin (the treatment for diabetic patients who need insulin to maintain blood sugar levels, the early treatment for early diabetic patients and the treatment for diabetic patients during pregnancy), Byetta/Bydureon (the improvement of glycemic control in adults with type 2 diabetes mellitus) and Qiming Keli (the treatment of retinopathy caused by type 2 diabetes), etc. The Group's products are mainly sold to hospitals and other medical institutions (namely, customers). As of 31 December 2018, the Group provided products and services for more than 2,000 Grade III hospitals and more than 14,000 Grade II or lower hospitals and health care institutions. The scope of coverage includes all provinces, autonomous regions and municipalities in the PRC.

The Group adheres to the vision of improving the quality of life of patients and bringing health benefits to the human race. Aiming at improving the quality of medicines and the quality of life of patients, the Group focuses on products and customer services and continuously improves the product quality management system and customer services system. While strengthening efforts in technological innovation and enhancing its products and services, the Group fosters the development of the industry. In 2018, the Group had no violation of laws and regulations or litigations in terms of product quality and customer services.

Laws and Regulations Related to Product and Customer Service Responsibility

Areas	Name of the principal laws and regulations
Product quality	Drug Administration Law of the People's Republic of China (《中華人民共和國藥品管理法》), Good Manufacture Practice of Medical Products (《藥品生產質量管理規範》), ICH Q10 Drug Quality Control System (《ICH Q10藥品質量管理體系》), Guidelines on cGMP Quality System Method for Pharmaceutical Industry (《製藥行業的cGMP質量系統方法指南》) by the U.S. Food and Drug Administration, Non-Clinical Drug Research Quality Management Regulations (《藥物非臨床研究質量管理規範》), Clinical Drug Trial Quality Management Regulations (《藥物臨床試驗質量管理規範》), Guidelines on Production Quality Management of Human and Veterinary Drugs (《人用與獸用藥品生產質量管理規範指南》) by the European Union, etc.

Areas	Name of the principal laws and regulations
Responsible marketing	the Advertisement Law of the People's Republic of China (《中華人民共和國廣告法》), the Anti-Unfair Competition Law of the People's Republic of China (《中華人民共和國反不正當競爭法》), Measures on the Examination of Pharmaceuticals Advertisement (《藥品廣告審查辦法》), Regulations for the Implementation of the 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》), Standards for the Examination and Publication of Drug Advertisements (《藥品廣告審查發佈標準》), Drug Specification and Label Management Regulations (《藥品説明書和標籤管理規定》), etc.
Protection of intellectual property	Patent Law of the People's Republic of China (《中華人民共和國專利法》), Rules for the Implementation of the Patent Law of the People's Republic of China (《中華人民共和國專利法實施細則》), Trademark Law of the People's Republic of China (《中華人民共和國商標法》), etc.

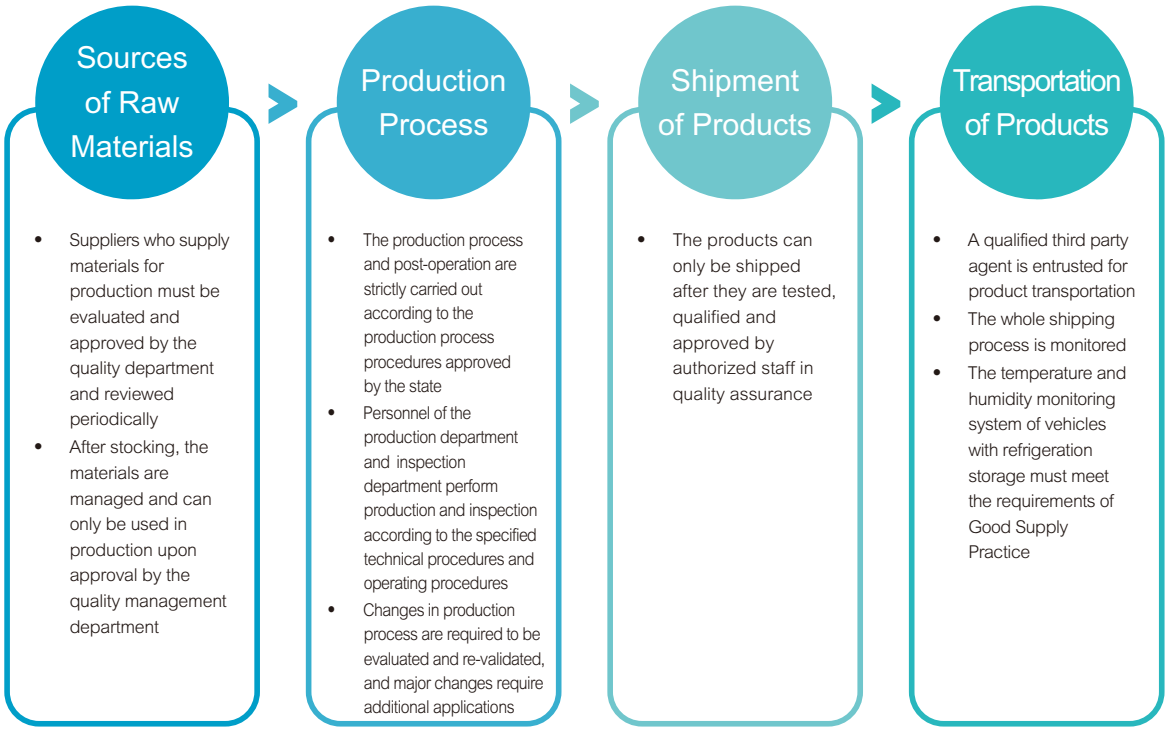
4.1 Providing Quality Products with Continuous Innovation

Quality control system

The Group strives to ensure and enhance the quality of pharmaceutical drugs, adheres to the principle of "quality originates from design" and earnestly implements product liability. The Group has established a quality control system which covers the sources of raw materials, production, shipment and transportation as a fundamental safeguard, and has formulated the Quality Inspection Management Regulations and quality control procedures, which set out the responsibilities of all procedures and relevant personnel, ensuring the standard of product quality inspection management and improving the accessibility of health products. The Group implements a unified quality management standard, and all raw and auxiliary materials are referencing to the U.S. Pharmacopoeia, the European Pharmacopoeia and the Chinese Pharmacopoeia. The Group has also established relevant quality standards, which are introduced into the production process after strict testing. The Group revises the management system according to the latest Chinese and foreign pharmacopoeia every year to optimize the management process. The quality department of each production base has a one-vote veto on the supplier in terms of product quality.

The quality control system of the Group has been widely recognized by domestic and foreign certification systems. All the pharmaceutical subsidiaries of the Group had passed the certification under the 2010 Version of the GMP of the People's Republic of China. Shenyang and Shanghai bases have also obtained certifications from PIC/S countries such as Ukraine.

Product Quality Control System



Product safety

Product safety of pharmaceutical drugs has always been the focus of the Group. In order to fulfill its responsibilities on patient safety, the Group has established a comprehensive pharmacovigilance system in accordance with regulations and guidance documents such as the Administrative Regulations on the Reporting and Monitoring of Adverse Drug Reactions (《藥品不良反應報告與監測管理辦法》) and Notice on Direct Reporting of Adverse Reactions by Marketing Authorization Holders (《關於上市許可持有人直接報告不良反應事宜的公告》) issued by the PRC National Medical Products Administration and in combination with the relevant requirements of the Company. The Group has also established a pharmacovigilance center to collect, process and report adverse reactions of marketed drugs and timely deliver information related to drug safety, in order to ensure drug safety and protect patient's rights. In 2018, the Group formulated and improved the Administrative Regulations on the Standards of Pharmacovigilance Work (《藥物警戒工作標準管理規程》), which explicitly stipulated the time limit for reporting safety data of marketed drugs. Channels for receiving adverse reaction reports, such as email, telephone and fax, are published on the official website of 3SBio by the Alert Center.

Each production base has formulated the Administrative Regulations on the Reporting and Collection of Adverse Drug Reactions (《藥品不良反應的報告及收集管理規程》), which standardizes the investigation and process procedures for adverse drug reactions. Meanwhile, each production base has established standard operating

procedures for the processing of non-conforming products, which stipulate the processing procedures and relevant requirements for non-conforming products including expired drugs, and the quality personnel of each base monitors all processing procedures of non-conforming products.

Time Limit for Reporting Safety Data of Marketed Drugs

	Time Limit for Reporting	Type of Incident
Domestic	Immediately	• Any incident involving death or suspected death • Incidents of adverse drug reaction on groups of patients
	Within 15 days	• New and serious adverse reactions
	Within 30 days	• Other general adverse reactions
Overseas	Within 30 days	• Serious adverse reactions
	Within 24 hours	• Drugs suspended for sale or use or withdrawal due to adverse reactions

Handling Procedures of Adverse Drug Reactions

Collection

- Collection methods include market research, customer return visits and reports of medical institutions and patients

Informing

- Relevant staff inform the adverse reaction monitoring group of the adverse drug reactions and incidents collected

Investigation

- The monitoring group conducts telephone interview or on-site investigation on adverse reaction cases, and the subject of research includes product information, sample testing, condition of sales and transportation, condition of use, combined drug use, etc.
- For the completion of the investigation report, the report needs to be reviewed by the adverse reaction coordinator and the adverse reaction monitoring group of the Company and approved by the Qualified Person

Analysis

- The adverse drug reaction monitoring group analyzes the investigation of suspected adverse reaction cases and reports new or serious adverse reactions or incidents in a timely manner

Reporting

- Reporting on the platform of regulatory institutions: all adverse reactions of domestic drugs in the new drug monitoring period must be reported, and new and serious adverse reactions of other products must be reported

Quality training

In order to further ensure the quality of pharmaceutical drugs, the Group has established the GMP training standard operational procedures and formulated training requirements for pharmaceutical production quality for relevant personnel of the Company to ensure that staff in all bases receive post-related GMP trainings on a timely and orderly basis, so that the behavior of pharmaceutical production quality relevant personnel is in line with GMP requirements. Product quality training is carried out at each production base as required.

In addition, the Group conducts trainings on product adverse reactions for all new staff in the marketing department. The trainings are divided into offline and online training models. The content of trainings includes national pharmacovigilance regulations, the pharmacovigilance standard operating procedures of the marketing department of 3SBio and the filling out of adverse reaction report. All trainings include on-site assessment to ensure the quality of trainings. In 2018, the online training coverage for staff in the Group's marketing department was 100%; the number of staff receiving offline trainings was 880; and the pass rate of trainings was 100%.

Product quality training

In 2018, Sunshine Guojian and NERC actively carried out product quality trainings in accordance with the GMP training standard operational procedures. During the year, more than 50 internal and external trainings were arranged, covering mainly personnel engaged in quality assurance and there were around 3,000 attendances in these trainings. The contents of trainings included regulations, quality and compliance, pharmaceutical drugs and production processes, biopharmaceutical drug development and production, pharmaceutical drug technology transfer and pharmacovigilance.

The trainings have reinforced staff's understanding and grasp of the requirements and management strategies of all major quality management systems, helped the relevant personnel to better understand the requirements of relevant domestic and foreign regulations on quality management systems as well as the latest development in existing domestic and foreign laws and regulations and pharmacopoeia, and enhanced the quality management standards and the ability in handling relevant issues.

Technological innovation

The Group regards the research and development of innovative drugs as the principal subject and core driving force of its corporate development, and is committed to solving the problem of clinical drug use for patients. The Group owns the only National Engineering Research Center for Antibody Pharmaceutical Drugs in China approved by the National Development and Reform Commission, and has constructed four research and development bases in Shenyang, Shanghai, Shenzhen and Hangzhou to establish a research platform for biopharmaceutical drugs and chemical drugs. As the investment in research and development continuously increased, and with its

strong research and development capabilities and research and development platforms for biopharmaceutical drugs and chemical drugs, the Group has safeguarded and fostered the research, development and industrialization of innovative drugs.

Shenyang Sunshine, Zhejiang Wansheng, Sunshine Guojian, Sciprogen and NERC, subsidiaries of the Group, were awarded the certifications of "National High and New Technology Enterprise". As of 31 December 2018, the Group had 32 products under development, covering five major fields, namely oncology, auto-immune diseases and other diseases, nephrology, metabolic diseases and dermatology, among which, 22 were being developed as National Class I New Drugs (國家一類新藥) in China.

Academician and specialist workstation of NERC

Since the approval of establishment of the academician and specialist workstation of National Engineering Research Center of National Engineering Research Center of Shanghai Antibody Medicine (上海抗體藥物國家工程研究中心有限公司) in 2016, the management system has been continuously enhanced to ensure the effective and stable operation of the workstation and the continuous improvement of the Group's innovation capability.

The workstation actively conducts research in the field of targeted therapy for Antibody Drug Conjugates (ADCs) to address the currently empty market for ADCs. In 2018, the workstation successfully developed the 607-LDP fusion protein with anti-HER2 antibody and lidamycin prosthetic group protein, and achieved high expression in Chinese Hamster Ovary (CHO) cells. The expressed fusion protein has similar affinity to the original antibody and can be molecularly assembled with lidamycin-active chromophore to produce 607-LDM, the target product.

Management and protection of intellectual property right

The Group adheres to the intellectual property management policy of "innovation drives research and development, the management decides the future", and has formulated various systems, including the Intellectual Property Management Measures, Trade Secret Management Measures and Enterprise Intellectual Property Management Manual, to effectively manage and protect intellectual properties such as patents, trademarks and trade secrets and the Company's competitive edges and brand reputation, while avoiding infringement of the intellectual property rights of others. On the basis of implementing the requirements of the Group's system, Sunshine Guojian and NERC have formulated systems including the Patent Management Measures, Trademark Management Measures and Patent Incentive Measures to further manage their intellectual property rights. In 2018, the Group made steady progress in patent applications and authorizations as well as trademark applications and registrations.

Fields	Progress in 2018
Patents	• 16 patent applications • 6 patent authorizations
Trademarks	• 2 trademark applications • 20 trademark registrations
Other intellectual properties	• 44 patent search analysis • 3 non-authorized public opinion submissions to the State Intellectual Property Office

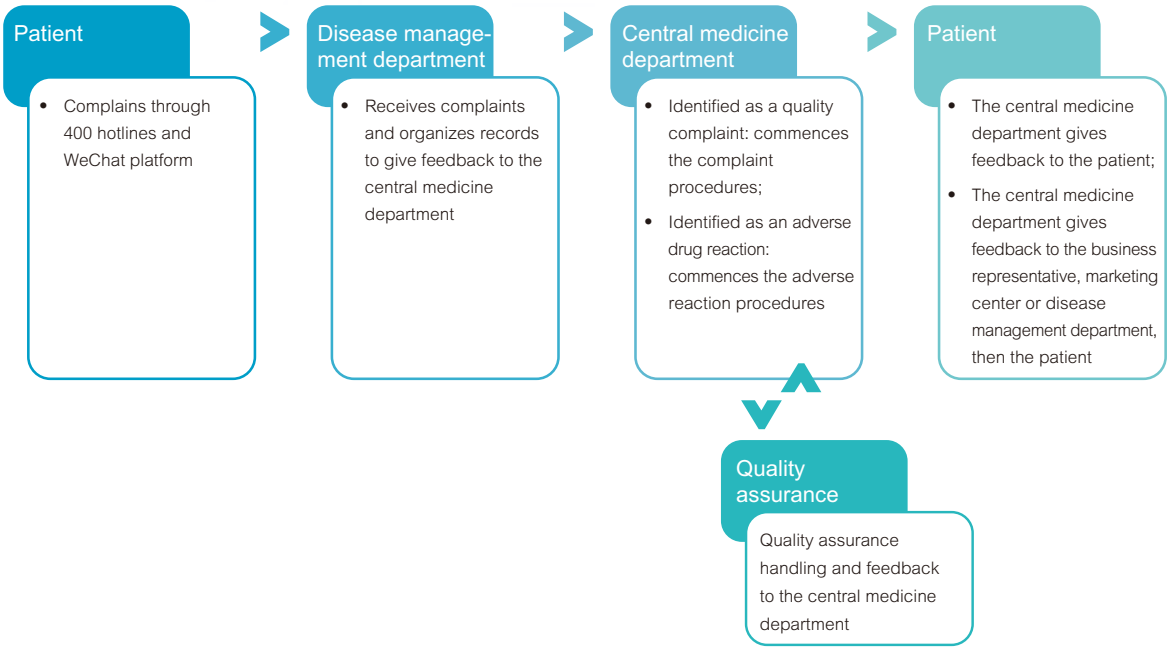
4.2 Providing Quality Services to Customers and Patients

Customer services system

The Group attaches great importance to the services to customers and patients, and strives to establish patient services as the Group's distinctive brand, making patient management one of the core competitiveness of the Group. The Group has established a comprehensive patient complaint and product return management system and procedure, and actively sets up customer communication channels to provide timely and effective solutions. Customers and patients can contact the Group through channels such as the 400 hotlines or WeChat platform of the Group. Through the internal customer complaint handling procedures, the Group conducts internal communication on complaints immediately and provides answers and proper solutions for its customers.

In addition, in order to improve the quality of customer services, the Group's call center has a 24-hour brand service hotline in place to handle customer's pre-sales and after-sales needs in a timely manner. For different types of patients in each product line, the call center carries out regular follow-up upon the use of drugs to understand patient's current situation, collect patient's feedback and improve patient services.

Customer Complaint Handling Procedures



Complaints about product quality or damaged packaging and transportation issues:

The first person who receives complaint shall give feedback to his/her immediate supervisor. After verification, he/she shall communicate with the business department or production department and follow up the replacement or recall of product.

Product recall mechanism

The Group has formulated and continuously enhanced the Product Recall Management Regulations of the Group in accordance with relevant domestic and foreign laws and regulations including the Administrative Measures for Drug Recalls (《藥品召回管理辦法》) of the State Food and Drug Administration, new GMP of the PRC and cGMP of the European Union. The recall procedures include commencement of recall, transportation arrangements, receipt, isolation, investigation, transfer or destruction. Each of the Group's production bases conducts simulated recalls at least once every two years to ensure the effectiveness of the recall mechanism, guarantee that defective products can be quickly recalled in an emergency situation and reduce the circulation of defective products to safeguard the interests of customers. In 2018, the Group had no product recall as a result of product quality defects.

Protection of customers' data privacy

In order to implement data privacy protection for the Group's customers, the Group has formulated the Code of Conduct and Ethics for Employees, which requires each employee to keep confidential the non-public information of third parties including customers, employees and agents. Employees of the Group signed a confidentiality agreement as required and strictly abide by the agreement. In 2018, the Group formulated the Office Staff Information Security Management Manual for all employees, which further strengthened the management of information security of employees and reinforced the information security and confidentiality awareness of office staff of the Group.

The Group collects and manages necessary customer information through the internal SFE management system, which is equipped with strict authority management. Different levels of users have different authorization for accessing images and data. Any access and use of information related to customers such as commercial companies and hospitals is only permitted within the system, and any form of export is strictly prohibited. In 2018, the Company did not have any confirmed leakage, theft or loss of customer information.

4.3 Conducting Accountable Marketing

The Group adheres to the business philosophy of "integrity, standardization, transparency and fairness", and is always devoted to promoting pharmaceutical drugs and medicines in an ethical, scientific and objective manner. In terms of product labeling and advertising, the Group strictly complies with relevant national laws and regulations to ensure that supervisory authorities, medical professionals and patients can receive timely, genuine and precise products and academic information. In 2018, the Group complied with the RDPAC Code of Conduct in accordance with the requirements of its partners and cut off the promotion of auxiliary products for prescription drugs. Meanwhile, the Group planned to perform adjustment according to the requirements of RDPAC to completely cut off the promotion of auxiliary products.

According to the Administrative Regulations on Drugs Specifications and Labels (《藥品説明書和標籤管理規定》) and the Chinese Pharmacopoeia (2015 edition) of the State Food and Drug Administration, each production base has formulated constitutional documents including the Management System for Printed Packaging Materials and Review and Management System for the Design of Printed Packaging Materials to establish pharmaceutical drug label management procedures and make clear provisions on the specifications to be followed in the design, procurement, receipt, inspection, storage and use of labels. In addition, the Group provides responsible marketing trainings for its employees to reinforce the concept and knowledge of compliance and responsible marketing.

Overview of Pharmaceutical Drug Label Management Procedures

- The product department/ packaging material designer is responsible for the design, which will be reviewed by the medical department, intellectual property department, registration department, quality department, production department, procurement department and packaging material manager to ensure its compliance with relevant regulations before approval by the person in charge of quality management

Label design: Standard Operational Procedures for the Design, Review and Approval of Printed Packaging Materials

- Procuring labels from qualified suppliers
- If the change of label involves marketing permit, an application is required to be filed to the drug regulatory authority, and it has to be approved by the quality department upon the approval of application

Label procurement: Material Procurement Management Procedures

- The warehousing department is responsible for receiving the label and conducting a preliminary warehousing inspection based on the sample label
- Upon warehousing, isolated storage and clearance inspection are implemented to compile complete written records

Label receipt: Material Warehousing and Receipt Management Procedures

- The quality control (QC) laboratory is responsible for the sampling and inspection of labels, and carrying out batch inspection and full inspection on the content, layout, color code, size, material and quantity of labels

Label inspection: Label Sampling and Inspection Management Procedures

- Labels are stored and locked up to prevent the risk of leakage of labels which would result in counterfeit drugs, and the warehouse department maintains a complete and traced written record of the quantity of labels
- Different batches of different products are stored separately to prevent confusion

Label storage: Material Management Management Procedures

- The use and application of labels in the type and quantity of medicine should be accurate
- The used labels are destroyed at the end of production, and the remaining blank labels are returned to the warehousing department for registration and storage

Label usage: Label Operation Management Procedures

5. Supply Chain Responsibility

The choice of suppliers affects the stability and safety of pharmaceutical products, as well as the sustainability of the Group's economy and the environment. The Group pays attention to the laws and regulations related to supply chain management, and has established a responsible supply chain based on the principle of openness, fairness and impartiality to ensure the development of the Group's business, while protecting the interests of suppliers, helping suppliers to grow and improving the overall responsibility of the supply chain, striving to achieve growth together with its suppliers.

Laws and Regulations Related to Supply Chain Responsibility

Area	Name of the principal laws and regulations
Supply chain responsibility	Good Manufacture Practice of Medical Products (《藥品生產質量管理規範》), Contract Law of the People's Republic of China (《中華人民共和國合同法》), Sarbanes-Oxley Act, etc.

5.1 Establishing a sustainable supply chain

The Group implements effective management on suppliers to realize a sound cooperation model that enhances the quality of products and services, reduces costs and lowers cooperation risks. The Group has formulated and strictly complied with a series of management systems including the Group Procurement Management Manual, Administrative Rules for Production Material Suppliers, Quality Auditing Rules for Material Suppliers and Management Rules for Production Materials. Through stringent system standards, the Group has achieved the management of suppliers' green procurement business chain from source to delivery, realizing the responsibilities of supply chain compliance, quality and safety, environmental protection and sustainable development.

The Group classifies its suppliers into four categories, i.e. class I to IV, by their offerings or service categories. In 2018, the Group requested suppliers of class I, II and III to issue a Supplier Compliance Statement to demonstrate their legal, ethical, social and environmental commitments. Among a total of 391 suppliers of class I to III, 286 of them have issued the compliance statement, representing more than 70% of the total number of suppliers. The Group maintains mutual communication with suppliers to promote the effective development of supplier counseling. The Group's procurement department periodically explains the significance of the compliance statement in respect of compliance with laws, labor, environment and other relevant contents by telephone and email to all suppliers. Suppliers occasionally gives feedback to the designated personnel of the Group's procurement department on knowledge in respect of compliance with laws, labor, environment and other relevant contents.

Class of suppliers	
Class I suppliers	Suppliers of raw materials, auxiliary materials, packaging materials and consumables related to production
Class II suppliers	Suppliers of large-size equipment, non-production bulky materials, large-scale engineering projects and services
Class III suppliers	Suppliers of small and medium-sized equipment, general non-production materials, small and medium-sized engineering projects and services
Class IV suppliers	Suppliers other than class I, II and III suppliers

The Group continuously strengthens the audit of suppliers and regularly evaluates suppliers in terms of product quality and safety, environmental protection and social responsibilities every year. In 2018, the proportion of suppliers under environmental, labor and ethical assessments by the Group increased to 45% from 9.2% in the previous year. In addition, the Group cooperated with Huaxia Dun & Bradstreet and commissioned it to conduct due diligence investigation on the Company's suppliers. A total of eight suppliers of class II and III were investigated, representing approximately 11% of the total number of class II and III suppliers.

Compliance, Quality and Safety and Environmental Protection Philosophy of Supply Chain Management

Compliance	To realize "sunshine procurement", the procurement business shall strictly comply with relevant legal requirements, such as the requirements of GMP, Sarbanes-Oxley Act and the Contract Law of the People's Republic of China.
Quality and Safety	Suppliers must commit to the Group that the quality of the material provided shall satisfy the requirements for authoritative certification and pass the review by the Group's professionals so as to ensure drug safety.
Environmental Protection	On the premises of ensuring production of drugs with satisfactory quality, the Group shall pay close attention to environmental protection and communicate such philosophy to suppliers so as to facilitate the production, packaging and logistics processes in a more environmental-friendly manner.

On-site audit of suppliers

In 2018, each production base conducts on-site audit on major production material suppliers based on supplier selection principles, quality assessment methods, content and standards, approval procedures and change procedures. On-site audits include general business conditions, institutional structure and personnel, plant facilities and equipment, warehousing and materials management, production management, quality management and operation management. For issues of the suppliers found in on-site audit, each production base requires the suppliers to carry out rectification and will check the results of the rectification. By strengthening the audit and management of suppliers, each production base guarantees the high quality of production materials to maintain the quality of the Group's products.

Production bases	Inspections
Shenyang base	On-site audit of suppliers, with a total of 8 suppliers audited and passed the audit.
Shenzhen base	On-site audit of suppliers, with a total of 9 suppliers audited and passed the audit.
Hangzhou base	On-site audit of suppliers, with a total of 14 suppliers audited and passed the audit after rectification of defects found.
Shanghai base	On-site audit of suppliers, with a total of 12 suppliers audited and passed the audit after rectification of defects found.

5.2 Assisting in the Growth of Suppliers

The Group has always regarded suppliers as partners for mutual development, focusing on long-term technical cooperation with suppliers to promote mutual value recognition and common development. The Group Procurement Management Manual, the GMP system Quality Assurance Agreement, Quality Standards and other documents have explicitly stated the regulations for establishing long-term supply agreements with qualified suppliers of class I and II.

In 2018, the Group was invited to participate in the Pharmaceutical Supply Chain Annual Meeting and the Second Pharmaceutical Enterprise Procurement Forum (醫藥供應鏈年會暨第二屆製藥企業採購論壇). The meeting discussed topics including the impact of the latest government policies and regulations on pharmaceutical procurement, procurement tendering and contract management, market analysis and supplier selection, which helped the Group to keep track of industry development and enhance its management and support capabilities on suppliers.

6. Employee Development Responsibility

The Group regards its employees as core resources and valuable wealth, always adheres to the people-oriented principle and actively safeguards the legitimate rights and interests of its employees. The Group is committed to providing a safe and healthy working environment for all employees, focusing on the career and capability development of employees, creating a harmonious environment and actively fostering the mutual development of employees and the Group. In 2018, the Group had no litigations and violations of laws and regulations in respect of employment, occupational health and safety, child labor and forced labor.

Laws and Regulations Related to Employee Development Responsibility

Areas	Name of the principal laws and regulations
Employee interests and benefits	Labor Contract Law of the People's Republic of China (《中華人民共和國勞動合同法》), Regulations Concerning the Labor Protection of Female Staff and Workers (《女職工勞動保護條例》), Regulations on Social Pension Insurance (《社會養老保險條例》), Social Insurance Law of the People's Republic of China (《中華人民共和國社會保險法》), Labor Dispute Mediation and Arbitration Law of the People's Republic of China (《中華人民共和國勞動爭議調解仲裁法》), Trade Union Law of the People's Republic of China (《中華人民共和國工會法》), etc.
Employee health and safety	Production Safety Law of the People's Republic of China (《中華人民共和國安全生產法》), Law of the People's Republic of China on Prevention and Control of Occupational Diseases (《中華人民共和國職業病防治法》), Fire Prevention Law of the People's Republic of China (《中華人民共和國消防法》), Hazardous Chemicals Management Regulations (《危險化學品管理條例》), Standards for Fire Prevention Systems of Structures (《建築物防火規範》), etc.

6.1 Employee Interests and Benefits

Employee employment and basic interests

The Group always adheres to legal employment and has signed labor contracts with all employees. Through constitutional documents including the Employee Handbook, Employee Resignation Management Rules, Attendance and Leave Management Measures and Employee Supplementary Medical Insurance Fund Management Measures, the Group has standardized all policies on recruitment, working hours, promotion, remuneration and benefits to safeguard the legitimate rights and interests of employees. Meanwhile, the Group strictly implements equal employment, follows an open and equal employment principle and prevents all forms of employment discrimination to ensure that employees are not discriminated against on the basis of race, religion, gender, age, marital status, disability and nationality. In 2018, the Group did not have any child labor or forced labor.

The Group has standardized its employee recruitment, performance appraisal and remuneration management system and adopted a unified performance management system to further ensure equal employment and provide a more scientific management channel for employee performance appraisal and promotion. In addition, the Group has formulated a commercial welfare insurance policy to provide employees with commercial insurance (available to employees aged 16–60). Shenyang Sunshine has established a supplementary medical fund to provide multi-level medical protection for employees in need.

In order to provoke employees to have a sense of ownership and to motivate their passion for work, as well as to realize the effective balance between the long-term interests of the Group and the short-term interests of individuals and between the overall interests of the Group and the partial interests of individuals, the Group has established a sound equity incentive mechanism to standardize the distribution principle, distribution method and assessment mechanism of employee equity incentives. The Group has granted equity interests to the Company's senior management, middle management personnel and core personnel of key positions (representing 6% of the total number of employees) with the achievement of the Company's overall performance objectives as a vesting condition, in order to motivate employees to endeavor to focus on achieving the Company's objectives, realizing the long-term, balanced and coordinated development of the interests of the Company and its employees.

Overview of Employee Employment and Basic Interest Systems

Remuneration and Termination

- **Remuneration:** formulates mechanism on remuneration and pays remuneration in accordance with the requirements of laws and regulations; implements the pay mechanism based on post, performance and capability; investigates and surveys the remuneration and welfare of pharmaceutical and other industries to provide reference for salary adjustment
- **Termination:** formulates the Management Regulations on Employee Resignation to standardize and improve employee turnover management

Employment and Promotion

- **Employment:** implements equal employment and prohibits forced labor
- **Promotion:** employee performance evaluation is a standard for annual performance bonus and promotion and demotion or rewards and punishment

Working Hours and Leaves

- **Working hours:** standard working hours: each staff works for 40 hours per week; comprehensive working hours: each staff shall arrange the working time and rest time according to the actual situation of each department
- **Overtime:** for overtime, employees can apply for taking working days off
- **Leaves:** paid annual leave, leave for marriage or funeral, maternity leave, sick leave and other leaves shall be provided as prescribed by the state

Welfare

- **Social insurance:** medical insurance, pension insurance and unemployment insurance shall be provided to all employees as prescribed by the state
- **Supplementary medical insurance:** supplementary medical insurance fund shall be provided for certain employees in need
- **Commercial insurance:** commercial insurance including accident insurance, critical illness insurance, outpatient/inpatient hospitalization shall be provided to employees (16–60 years old)
- **Equity incentive mechanism:** equity interests are granted to the Company's senior management, middle management personnel and core personnel in key positions (representing for 6% of all personnel)

Employee communication and care

In order to strengthen democratic communication and establish a harmonious and stable labor relationship, each production base of the Group has established trade union and staff representative conference. The trade unions negotiated and signed a collective contract, a collective salary negotiation agreement and a Special Protection Agreement for Women Workers with the Company. The Group continuously improves the system of staff representative conference and the all-employee-participation management mechanism to ensure that employees have full rights to know, participate, express and supervise.

The Group has established an employee critical disease medical fund to help and support employees in need. Zhejiang Wansheng has further developed a system of assistance for employees in need, inquiring about the living conditions of employees every year and setting records for employees in need to provide assistance funds for them. In addition, the trade union of each production base actively carries out various heart-warming activities for employees in need.

Overview of Caring Activities for Female Workers in 2018

- Shenyang Sunshine established a maternal and child room to help female employees in lactation to experience a specific physiological period in a healthy, safe and enjoyable manner
- Sunshine Guojian established a love mommy cabin with facilities such as refrigerators, lockers and sofas and daily necessities
- Sciprogen gave holiday gifts to all female employees on the 8th March Women's Day and conducted interviews with female employees to understand their difficulties at work

Work-life balance

The Company promotes the concept of work-life balance to all employees. In order to enrich and enhance the life of employees and create a relaxed and pleasant working environment, the Group actively organizes various cultural and sports activities, emotional management activities and mental health care activities based on the needs of employees to ease their work pressure, create a happy, healthy and harmonious working and living atmosphere and improve the sense of belonging and happiness of employees.

Overview of Employee Work-Life Balance Activities in 2018

- The Group organized the 3SBio "Sunshine Cup" basketball game
- Sciprogen organized employees to participate in outdoor mountaineering and badminton games during weekends
- Zhejiang Wansheng organized the Xiamen Feiying Tour group event for all employees
- Zhejiang Wansheng provided stress relief courses on understanding emotions and releasing stresses for employees
- Sunshine Guojian carried out themed cultural activities such as film and television appreciation and writing salon

Zhejiang Wansheng provided Stress and Emotion Management training

In order to help employees learn to release stress and manage their emotions, Zhejiang Wansheng engaged external lecturers to provide employees with theoretical knowledge and application methods for understanding their mentality, managing stresses and managing emotions through a one-day training course. The training course combined a large number of true-to-life case studies for sharing in the classroom, so that employees could understand emotions and release stresses together. Favorable results were achieved, with an employee training satisfaction rate of over 98%. This training helped employees to increase their understanding and attention to emotions and ensure a smoother and healthier living and working environment.

6.2 Occupational Health and Safety

Safe Production

The Group has set up safe production management committee and established safety management systems for strict enforcement, including the Safety Production Management System, the Safety Check Management System, the Identification and Treatment Management System for Hidden Safety Perils, the Emergency Rescue Management System and the Hazardous Chemicals Management System, to regulate the implementation of the work of safety management.

Each production base conducts evaluations on the current safety production on regular basis, recognizes safety risks, implements the identification and rectification of hidden safety perils, and at the same time actively conducts safe production-related trainings and emergency drills. In 2018, each production base continued to optimize the safe production management system. Shenyang Sunshine, Sunshine Guojian, Zhejiang Wansheng and Sciprogen have obtained the National Third-Class Work Safety Standardization Certificate. Sciprogen has obtained the Certificate of Qualification for Safety Rectification and Upgrade in Industrial Park in Longgang District of Shenzhen (深圳市龍崗區工業園區安全整治與提升達標證書).

Main Safety Work Progress in 2018

Zhejiang Wansheng

- Conducted hidden safety peril checks on a monthly and quarterly basis, actively organized workshops and departments to carry out the work on analyzing the risks to ensure that the recognized risks were under control
- Installed underneath ventilators in the chemical stockrooms to improve ventilation

Shenyang Sunshine

- Conducted professional checks on safety production and critical spots once every month; the check included safety checks on power consumption, operation in confined spaces, operation at heights, and so on
- Conducted two emergency drills and one fire control training, with 325 participants in total

Sciprogen

- Conducted the works of technological advancement, such as modification of workshop colour steel plate structure, modification of old and aged dynamic electricity distribution and secondary circuit, and modification of old and aged equipment
- Conducted two hidden safety peril checks every week, monthly summarized reviews; 836 items for safety risk checks were undertaken for the year 2018 with 824 items rectified, 12 items under modification
- Conducted two safety emergency drills with all staff participated

Shanghai Base (Sunshine Guojian, NERC)

- Conducted monthly hidden peril checks; checking covered the entire factory and 20 hidden perils rectified
- Conducted two safety emergency drills with all staff participated

Month of Safe Production by Zhejiang Wansheng

In order to strengthen the internal safety production work of the Company and effectively prevent employer injuries, the Company conducted activities under the theme of "Life Counts, Safe Development" in June, 2018. The activity lasted for one month, during which an atmosphere of "safe production" was created for the entire company. Through approaches such as promotion banners, WeChat videos, seminars on dangerous behaviours, a series of internal education was conducted. Through approaches such as WeChat platforms and public accounts, staff were encouraged to participate in the competition of discovering hidden peril. Apart from that, the Company organized activities such as internal emergency evacuation drills, emergency drills on district levels, competitions on fire prevention skills, brief emergency trainings at fire stations, to help employees to increase awareness in actual trainings, and increase their sensitivity and abilities in handling emergency situations, and this can further ensure safe production for the Company and occupational health of the staff.

Occupational health

The Group strives to create a healthy and safe working and living environment for employees, and strictly complies with the relevant laws and regulations on both national level and local level, and thus has established Occupational Health Management System, and has set up employee health management departments, and continuously improves the staff occupational health management. Sunshine Guojian has obtained the Occupational Health and Safety Management System Certificate (OHSAS 18001).

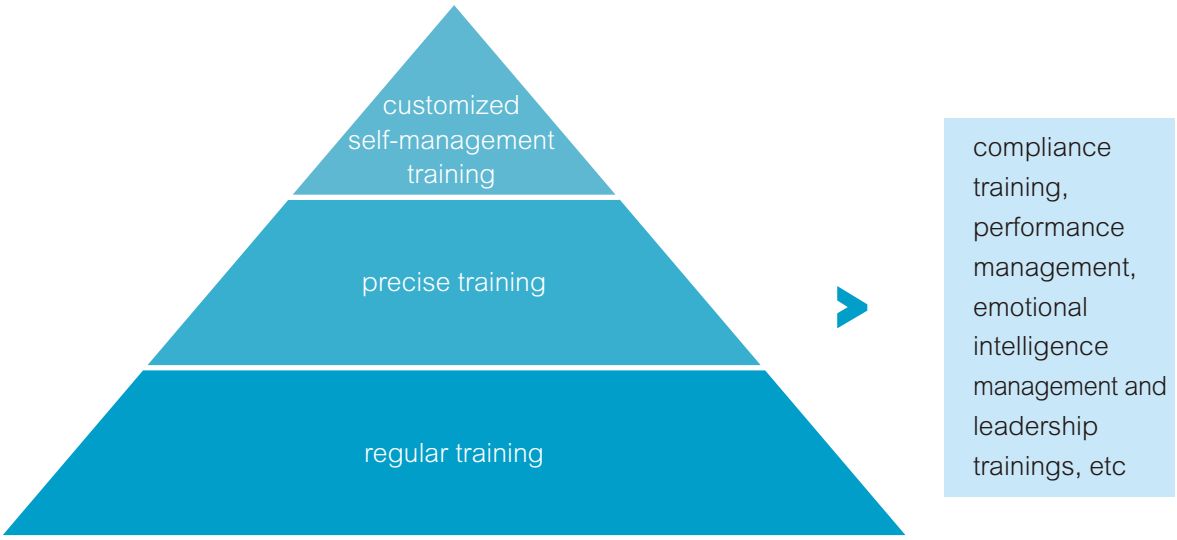
The Group commissions the third parties to conduct on-site checks on each production base for occupational peril elements every year and announces the results. The checks include checks on noises, hydrochloric acid, phenol, sodium hydroxide, etc. At the same time, staff occupational health monitoring records were created. The pre-employment, on-duty and off-post medical check-ups for employees were actively implemented to ensure the occupational health of staff.

The Group provides employees with protective facilities and equipment against occupational diseases, strengthens warning reminders on the production site and daily patrol monitoring. The Group strengthens the occupational health training for staff for raising their awareness for risks, continuously regulates the staff operation in the production process in order to reduce the impacts on staff from the hidden perils in the production process. In 2018, there was no incident of work-related illness occurred in the Group and any production base.

6.3 Career Training and Development

The Group considers employees as valuable wealth and driving force for sustainable development of the Group. In order to standardize our talent management, the Group adopts a standardized performance management system and carries out performance assessment with fairness and openness, and executes job promotion management with objectivity and seriousness to promote talents. Each production base sets out Job Promotion Management Measures to standardize position management and ensure promotion principle and career development path to offer strong guarantee on the career growth and development for employees.

The Group establishes 3S training system that covers all employees and provides different levels of training courses under three levels of trainings, employees may take personalized trainings in accordance with their needs. Furthermore, in order to enhance the development of employees' abilities, the Group provides various product quality and safety trainings and employee leadership development training, to better assist employees to obtain comprehensive, consolidated trainings and skills development.



3S training system

"Jiangshan Team" (江山戰隊) shouldered the mission of fostering employee growth

In the year of 2018, Human Resources Division of the Group launched "Jiangshan Team" campaign with the Business Division of TPIAO (特比澳), the campaign was led by TPIAO (特比澳) management team and Human Resources training and development team of the Group and has strengthened frontline salespersons' learning and training, fostered the improvement and development of employees and achieved the common targets of the Group's talent retention and the employees' self-development. Since the execution of the campaign, 88 internal trainers have been developed, 56 training courses have been held and there were 882 attendances.

7. Contributions to the Society

The Group firmly upholds its professional competencies in medical field and benevolence. We enhance the accessibility of medicines and medical services, and provide quality resources to help patients to enjoy high-quality of living through donating medicines, training junior doctors, setting up communication platforms between doctors and patients and educating patients. Meanwhile, we provide all-rounded support to pharmaceutical industry development by assisting the advancement in medical science research, promoting medical academic philosophy, and involving in fostering the development of biotechnology industry. The Group actively fulfils its responsibility as a corporate citizen and strives for the long-term interest of the health of humankind.

7.1 Enhancing the accessibility of medicines and medical services

Enhancing the accessibility of medicines

The Group is committed to providing patients with safe, effective and high-quality products. We organized donation charity programs and charity testing programs to help more patients getting necessary therapeutic products and medical services, enhance the accessibility of medicines and help more patients to recover soon.

Progress of Charitable Medicines Donation and Free Medical Consultation Projects in 2018

No.	Name	Cooperating institutions	Initiation time	Progress in 2018
1	**"Guard the Happiness" (守望幸福) Bethune TPIAO charity donation project**	Beijing Bethune Charitable Foundation	2013	Donated 10,401 units of pharmaceuticals in total; covering 3,758 patients; donated medicines valued RMB8,862,692.1
2	**"Yi+Hope" (益+希望) Bethune Yisaipu charity donation project**	Beijing Bethune Charitable Foundation	2015	Donated 108,960 units of pharmaceuticals in total; covering 22,794 patients; donated medicines valued RMB71,913,600
3	**"Loving with Heart" (愛隨心達) diabetes patients supporting projects**	China Primary Health Care Foundation	2015	Involved a total of 11,799 people, of which, 2,174 patients were newly added in 2018, and donated medicines valued RMB43,375,200

No.	Name	Cooperating institutions	Initiation time	Progress in 2018
4	**"100% love • Byetta" (愛心百分百 • 百泌達) charity donation project**	National health and family planning commission of Mongolia, Hohhot Red Cross, the Medical Insurance Office of the Ministry of Human Resources and Social Security of Liaoning Province, Xinjiang Third Division of Medical Insurance Office and Yopurga County government	2018	Donated 10,080 units of pharmaceuticals in total, covering nearly 10,000 patients and donated medicines valued over RMB14,829,500
5	**"With You on Yi Road" (益路有你) Free medical consultation**	Hematology Branch Erythro cytology Group of Chinese Medical Association	2017	Organized three "With You on Yi Road" Free medical consultation activities, covering 83 hospitals, 856 hematology doctors, 700 hematology patients

Setting up communication platforms between doctors and patients

In order to help doctors and patients to achieve an effective communication, the Group initiated and set up particular communication platforms between doctors and patients based on patients groups using its main products. The platform helps patients to have effective communication channel and receives timely effective feedback information, and helps easing the tension between doctors and patients.

Work Progress of Setting Up Communication Platforms between Doctors and Patients in 2018

No.	Main functions	Launch Time	Progress in 2018
Popular in China (紅遍中國) — networking management project relating to anemia information of hemodialysis patients	• provides for hemodialysis patients • assists doctors in hemodialysis center to dynamically manage and monitor the anemia status of hemodialysis patients • increases the hemoglobin standard rate of patients	17 April 2015	Managed over 130,000 patients in total, over 870,000 cases' information, over 600 hemodialysis centers; sent regular report on achievement status of patients' HB (hemoglobin) and changes in other quality control standard of hemodialysis every month; enhanced hemodialysis patients' anemia detection rate and standard rate effectively.
E Doctor	• provides patients with rheumatoid arthritis and ankylosing spondylitis • patients have access to the schedule of their doctors and obtain one-on-one doctor's consultation • patients are informed of the updates about charitable donation of drugs and educational activities for patients • patients can record and summarize experimental indicators and self-assessment information related to diseases conveniently and effectively	12 November 2015	Collaborated with third party platform, issued 91 popular science articles on ankylosing spondylitis and rheumatoid arthritis with browsing volume reaching 308,119; live streaming of famous doctor's private lessons, each with more than 3,000 participants on average.

No.	Main functions	Launch Time	Progress in 2018
Diabetes patients club (糖堂俱樂部) WeChat public accounts	• diabetes patients can acquire professional, targeted and quality scientific knowledge of diabetes	1 July 2017	Collaborated with third party platform, issuing 90 popular science articles about diabetes with browsing volume reaching 44,324; over 200 people participated in the interactive activity of Diabetes's Day H5 "Gold Family activity" (金牌家屬活動).

Patient education

The Group established a patient education team (PSP), mainly targeting at patients with chronic diseases, to provide the use of charity products and professional after-sale services. We popularized patients' knowledge on the uses of medicines and health education by providing standardized treatment plan and follow-up calls on professional knowledge of the diseases. In addition, the Group is also committed to engaging in the work related to public medical knowledge popularization, so as to facilitate the society's awareness and prevention towards related diseases.

In 2018, PSP team completed 572 conferences on patient education and visited 1,478 patients in total. There were 190,144 patients newly covered by the service.

The Group created the first Chinese micro-movie about rheumatoid arthritis patients

In November 2018, the first Chinese micro-movie issued by the Group about rheumatoid arthritis patients was officially launched on platforms like Tencent and Youku. This micro-movie is based on real life story of rheumatoid arthritis patients. It tells a story about a professional violin player who is passionate towards music and cannot continue to play violin because of suffering from rheumatoid arthritis. Her family and friends gradually understand the disease and accompany her to overcome the hardship.

There are 5 million rheumatoid patients in China. The micro-movie educates the public about the early symptoms of rheumatoid with a positive tone, in order to raise the public awareness towards this kind of disease and do prevention, to enhance rheumatoid patients' knowledge to this kind of disease, and to encourage patients to proactively adopt treatment measures and live on with a positive and brave attitude.

The Group proposed to set up "Straight up, unstoppable life — ankylosing spondylitis social project"

On the fourteenth Rheumatology conference of Medical Association of Liaoning Province, experts, guests, representatives of Liaoning Sunshine Women's Volleyball Club attending the conference and the media jointly set up "Straight up, unstoppable life — ankylosing spondylitis social project" to educate the public about the knowledge of ankylosing spondylitis, early discovery, early screening, early diagnosis, early treatment; encourage patients who suffer from ankylosing spondylitis to have the "Never give up" spirit of Women's Volleyball Club; and encourage them to adopt formal proper treatment, proactively train themselves to improve the health condition gradually and overcome "ankylosing spondylitis".

7.2 Supporting the development of pharmaceutical industry

Supporting the development of medical scientific research

The Group aims at establishing a global leading Chinese biotechnology company and strives for promoting the advancement in medical science research. In 2018, the Group contributed to the development of medical science research by supporting various medical science research fund and academic projects.

Work Progress of supporting medical science research in 2018

No.	Name	Initiation time	Progress in 2018
1	**3SBio Inc. TCP Scientific Research Fund for Youth and Middle-aged**	2015	Since 3SBio Inc. TCP (Thrombocytopenia) Scientific Research Fund for Youth and Middle-aged was initiated in 2015, we have carried two middle-aged funds and one youth fund. We promoted to at least 3,000 doctors through various kinds of conference. Up until now, we have received 281 tenders, 73 of them are successful and implemented. In 2018, we received 148 tenders, 60 of which were successful. The first fund gave oral presentation of the prospective randomized controlled clinical study of recombinant human thrombopoietin (rhTPO) on platelets implantation after umbilical cord blood transplantation in patients with hematologic malignancies on the conference of American Society of Hematology (ASH).

No.	Name	Initiation time	Progress in 2018
2	**"Prairie Fire Plan" (燎原計劃) Academic Grant Project**	2015	"Prairie Fire Plan" is a project organized by Chinese Rheumatology Association and exclusively funded by 3SBio. It aimed at supporting youth and middle-aged doctors in rheumatic immunology to do research, striving towards accurate medical science and promoting stronger and faster development of national rheumatology. Out of the scientific research proposals submitted by 140 youth and middle-aged doctors across the country, 15 proposals were selected to receive funding from the project. As of 20 December 2018, we invested more than RMB1,740,000. The supported relevant research has published many articles, 19 of which were published in international journals. There were 10 articles published in national high-quality journal, 4 of which are pending to publish.
3	**China Youth Doctor Research Fund for Nephrology**	2017	China Youth Doctor Research Fund for Nephrology funded by 3SBio Inc. is a research fund project launched by the China CKD Alliance with the support of China International Exchange and Promotion Association for Medical and Healthcare. This project aims at supporting and encouraging young Chinese nephrologists to engage in high-level kidney disease research, enhancing scientific research ability and interest, and raising the development sustainability of China nephrology. Up until now, 7 doctors have received funding and RMB0.5 million was donated.

Enhancing medical academic exchanges

As a leading biopharmaceutical enterprise which integrates R&D, manufacturing and sales, the Group fully utilizes its own advantages, devotes itself to enhancing medical academic exchange, organizes and participates in various academic conferences and forums.

Work Progress of Academic Exchanges in 2018

Project Name	Progress
Annual Meeting of CSCO (Chinese Society of Clinical Oncology)	Organized two special conferences, covering 280 doctors in oncology from 150 hospitals; a debate was organized by TPIAO (特比澳) Business Unit, covering 150 doctors in oncology from 80 hospitals; two national oncology conference were launched, covering 60 doctors in oncology from 50 hospitals.
Annual Meeting of CRPC (The Committee of Rehabilitation and Palliative Care, China)	Organized one hemopoietic factor special conference, covering 200 doctors from 100 hospitals.
The Third Anemia Management Forum on Multi-disciplines and the Inaugurating Meeting of Chinese Anemia Day (第三屆多學科貧血管理高峰論壇暨中國貧血日成立大會)	Coordinated more than 300 specialists from multiple departments including nephrology, oncology, hematology, orthopedics, surgery, obstetrics and gynecology, gastroenterology and blood transfusion department to organize Anemia Management Forum on multi-disciplines; jointly called for the establishment of "Chinese Anemia Day" with The National Health Commission Development Center for Medical Science and Technology, Bethune Charitable Foundation and Chinese Medical Journal. 18 August was set as Chinese Anemia Day and a series of academic promotion and universal education were launched.
The Fifteen National Hematology Annual Conference (第十五次全國血液年會)	Held one hematology national conference, covering 150 doctors in hematology from 20 hospitals.
Perioperative Blood and Pain Management for Enhanced Recovery After Orthopedic Surgery Forum (骨科手術加速康復圍術期血液與疼痛管理論壇)	Held three Orthopedic Perioperative Blood Management Forum at the Third Enhanced Recovery After Orthopedic Surgery Annual Conference, the Second China Science and Technology Industry Association Enhanced Recovery After Surgery Annual Conference and the Fourth SICOT (International Society of Orthopedic Surgery and Traumatology) Annual Conference, respectively, covering 240 orthopedists from 160 hospitals.

Project Name	Progress
Perioperative Blood Management Forum on Multi-disciplines (多學科圍術期血液管理高峰論壇)	Held three national forums on multi-disciplines including orthopedics, covering 185 doctors in orthopedics, surgery, transfusion and anesthesiology from 140 hospitals.
"Yi Xin Lun Dao" (益心論道) Obstetrics Cases Speech Competition	Held three semi-finals and finals, 12 auditions, covering more than 800 obstetricians and gynecologists from 17 provinces.
"Yi Shen Lun Dao" (益腎論道) Speech Competition	Held auditions, training before competition, semi-finals respectively, and held national finals on Chinese Association of Integrative Medicine's Nephrology National Annual Conference.
Popular in China (紅遍中國) Free medical consultation	Held two (Enshi and Huzhou) academic conferences and free medical consultation throughout the year. Renowned specialists from Shanghai and Beijing provided professional guidance for local doctors, diagnosed and provided face-to-face treatment to patients, and provided professional services and support.
CAN (Chinese Nephrologist Association), CSN (Chinese Society of Nephrology), ASN (American Society of Nephrology) etc	Involved in more than 20 domestic or overseas large scale academic conferences. Delivered excellent speech on important academic conferences including CAN and CSN.
China Tour (中國行) of CRPC (The Committee of Rehabilitation and Palliative Care, China)	Launched the China Tour of CRPC — 4 training courses regarding anemia related to oncology were held, covering 220 doctors in oncology from 150 hospitals.

Promoting the Development of the Biopharmaceutical Industry

In 2018, the Group actively participated in compilation and amendment of medical standards and expert consensus, including compilation of "Guiding Opinions of Experts on GLP-1 Receptor Agonist Clinical Application" (《GLP-1受體激動劑臨床應用專家指導意見》), "Chinese Expert Consensus on Diagnosis and Treatment of Thrombocytopenia Caused by Chemotherapy for Tumor (2018)" (《腫瘤化療所致血小板減少症診療中國專家

共識(2018年版)》), "The Chinese Society of Clinical Oncology's Classic Osteogenic Sarcoma Diagnostic and Therapeutic Guidelines 2018.V1" (《中國臨床腫瘤學會CSCO經典型骨肉瘤診療指南2018.V1》), "Chinese Expert Consensus on Diagnosis and Treatment of Infection-induced Multiple Organ Dysfunction Syndrome in the Elderly" (《感染誘發的老年多器官功能障礙綜合征診治中國專家共識》), and "Chinese Guidelines for Treatment of Adult Primary Immune Thrombocytopenia (English)" (《成人原發免疫性血小板減少症診斷與治療中國指南(英文版)》), in order to continuously promote the development and advancement of biopharmaceutical industry in China.

In addition, Shenyang Sunshine continued to actively cooperate with organizations in the industry. We cooperated with National Institute for Food and Drug Control to participate in EPO (erythropoietin) reporting gene method testing, cooperated with World Health Organization to participate in calibration of national standards, and participated in the compilation of "Guidelines for Pharmaceutical Distribution Related Technology and On-site Inspection" (《製藥配液相關技術與現場檢查指南》) by China Center for Food and Drug International Exchange, in order to establish guiding principles for pharmaceutical distribution technology in pharmaceutical industry.

8. Data

Environment Responsibility[1,2]

Performance Indicators	Unit	2016[1]	2017	2018
Resources utilization				
Electricity consumption (Indirect energy)	MWh	11,227.57	25,011.80	39,162.14
Intensity of electricity consumption	MWh/RMB10,000	0.07	0.08	0.08
Natural gas consumption (Direct energy)	m^3	115,189.00	1,730,693.00	2,538,096.50
Density of Natural Gas Consumption[3]	m^3/RMB10,000	0.71	5.33	5.34
Petrol usage by our own motor vehicles	L	—	—	78,163.81
Diesel usage by our own motor vehicles	L	—	—	8,237.00
Water consumption	Ton	145,750.00	507,582.00	583,031.00
Intensity of water consumption	Ton/RMB10,000	0.90	1.56	1.23
Total volume of water consumption in the circulation	m^3	—	—	5,385.00
Proportion of the total volume of the circulated and reusable water in total volume of water consumption	%	—	—	0.92
Total volume of packing materials used in finished products	Ton	415.94	60.00	1,578.08

Performance Indicators	Unit	2016[1]	2017	2018
Emissions				
Non-GHG emissions[4]	m^3	—	25,000,000.00	26,793,008.00
Industrial Waste Water Discharged[5]	m^3	—	321,521.00	207,077.00
COD emission	Ton	—	—	11.52
NH3-N emission	Ton	—	—	0.61
Total volume of hazardous waste generated[6]	Ton	17.11	36.96	349.98
Intensity of hazardous waste generated	Kg/RMB10,000	0.11	0.11	0.74
Total volume of non-hazardous waste generated[7]	Ton	40.82	150.62	379.00
Intensity of non-hazardous wastes generated	Kg/RMB10,000	0.25	0.46	0.80
Greenhouse gas emissions[8]	tCO_2-eq	219.35	21,037.17	33,078.95
Comprised of: Scope 1 greenhouse gas emissions	tCO_2-eq	—	3,742.09	5,729.03
Scope 2 greenhouse gas emissions	tCO_2-eq	—	17,295.08	27,349.91
Intensity of greenhouse gas emissions	tCO_2-eq/ RMB10,000	0.015	0.065	0.070

Notes:

1. The statistical calibers of the environmental data in 2016 include that of Shenyang Sunshine and Sciprogen, and the data produced relating closely to greenhouse gas emissions only includes that of Sciprogen. The statistical calibers of total volume of packing materials used in finished products in 2017 were derived from the data relating to Sciprogen, and the statistics of total non-GHG emissions in 2017 were derived from data relating to Zhejiang Wansheng. The Group strikes to enhance the completeness of the information, until the year of 2018, the environmental information covered those of all the domestic production bases, except certain indicators with specific illustrations.

2. All intensity data in 2018, such as the intensity of electricity consumption, intensity of natural gas consumption, intensity of water consumption, etc would all refer to the corresponding electricity consumption, natural gas consumption, water consumption, etc per output value in RMB10,000. Intensity information from 2016 to 2017 would all refer to the corresponding electricity consumption, natural gas consumption, water consumption, etc per revenue in RMB10,000. Changes in calculation methods were made with the aim to ensure the consistency between the information submitted to the local government by Sunshine Guojian and NERC, and the Group considered the information regarding the calculation of intensity in terms of output value would assess the efficiency of resources utilization of the Group in a more accurate manner.

3. After data re-examination, the natural gas consumption per revenue of unit in 2017 as reviewed was adjusted to 5.33 m^3/RMB10,000 in this report.

4. Non-GHG emissions in 2018 was derived from that of Sunshine Guojian, while no Non-GHG pollutant was discharged from Zhejiang Wansheng with the cessation of the related infrastructure work.

5. Industrial waste water discharged in 2018 was derived from the data of Sunshine Guojian, Sciprogen, NERC and Zhejiang Wansheng. As Shenyang Sunshine was not the key pollutant discharging unit as defined by the local environmental regulatory requirements, no online monitoring or data collection was conducted.

6, 7. The increase in the total volume of hazardous waste generated in 2018 and the intensity of which was mainly due to the increase in biological waste liquids discharged from Sciprogen; the increase in the total volume of non-hazardous waste generated and the intensity of which was mainly due to the infrastructure work conducted by Zhejiang Wansheng, generating massive amount of garbage such as construction material.

8. Greenhouse gas emissions in 2017 and 2018 were the summation of Scope 1 and 2 greenhouse emissions, which are calculated separately by natural gas consumption and power consumption as well as their respective emission factors.

Staff employment

Performance Indicators	Unit	2016[1]	2017	2018
Staff employment				
Total number of employees	Persons	3,465	4,051	5,047
Male	Persons	1,646	2,055	2,536
Female	Persons	1,662	1,996	2,511
Labor contract	Persons	3,290	4,001	4,978
Labor dispatch	Persons	18	50	40
Part-time	Persons	/	/	29
Under the age of 30	Persons	954	1,442	1,764
30 to 50 years old	Persons	2,280	2,524	3,155
50 years of age or older	Persons	74	85	128
Employees in Mainland China	Persons	3,302	3,983	4,968
Staff from HK, Macau and Taiwan and overseas	Persons	6	68	79
Employee turnover rate[2]	%	14	20	19
Male	%	17	21	21
Female	%	12	19	17
Under the age of 30	%	18	18	20
30 to 50 years old	%	12	21	18
50 years of age or older	%	21	12	10
Employees in Mainland China	%	14	20	19
Employees from HK, Macau and Taiwan and overseas	%	33	4	5
Staff health and security				
Days of absence from work due to work-related injury[3]	Days	0	0	247
Number of work related fatalities	Persons	0	0	0
Staff Training				
Total investment in employee training	RMB10,000	34	1,557	1,249
Training participation rate of employees	%	100	73	76
Training participation rate of male employees	%	100	77	75
Training participation rate of female employees	%	100	69	76
Training participation rate of junior employees	%	100	65	61
Training participation rate of mid-level employees	%	100	94	100
Training participation rate of employees at senior management level	%	100	93	100
Average per capita hours of training for employees	Hours	43	27	21

Performance Indicators	Unit	2016[1]	2017	2018
Average per capita hours of training for male employees	Hours	/	31	21
Average per capita hours of training for female employees	Hours	/	23	21
Average per capita hours of training for junior employees	Hours	/	/	20
Average per capita hours of training for mid-level employees	Hours	/	/	24
Average per capita hours of training for employees at senior management level	Hours	/	/	28

Notes:

1. The total number of employees in 2016 included the management and sales team of the Group, Shenyang Sunshine, NERC, Sunshine Guojian, Zhejiang Wansheng, Sciprogen, Sirton and Shanghai Aoxi while the other figures excluded those of Sirton and Shanghai Aoxi; figures of staff training include Shenyang Sunshine and Zhejiang Wansheng. The employment data in 2017 and 2018 included the management and sales team of the Group, Shenyang Sunshine, NERC, Sunshine Guojian, Zhejiang Wansheng, Sciprogen, Sirton and Shanghai Aoxi.

2. After data re-examination, employees in Mainland China, staff from HK, Macau and Taiwan and overseas and staff turnover rate had been adjusted for 2017.

3. Staff turnover rate was calculated based on the following formula: staff turnover rate = the number of staff of the category lost during the reporting period / (total employee number remaining in 2018 + the number of staff of the category during the reporting period) x 100%.

4. The seriousness of the injuries occurred in the Group in 2018 did not reach the standard of the recognition as work injuries.

Product and Customer Services

Performance Indicators	Unit	2016	2017	2018
Percentage of total products sold or shipped subject to recall for safety and health reasons	%	0	0	0
Number of products and services related complaints	Numbers	40	43	13
Resolving rate of products and services related complaints	%	100	100	100
Total non-compliance incidents of products and services provided in respect of health and safety and labeling	Times	0	0	0

Supply chain Responsibility

Performance Indicators	Unit	2016	2017	2018
Total number of suppliers	Persons	849	960	1,160
Number of suppliers from Mainland China	Persons	832	950	1,150
Number of suppliers from Hong Kong, Macau and Taiwan and overseas	Persons	17	10	10
Number of suppliers having completed assessment on environment, labor and morality	Persons	/	88	522
Number of inspections of suppliers	Times	849	960	1,160

Anti-Corruption

Performance Indicators	Unit	2016	2017	2018
Numbers of concluded legal cases regarding corrupt practices brought against the Company and its employees	Numbers	0	0	0

Community Contribution Responsibility

Performance Indicators	Unit	2016	2017	2018
Charity donation	RMB	/	/	36,224,000
Volunteers	Participations	/	/	640
Voluntary services conducted	Hours	/	/	230,400

9. References To the Hong Kong Stock Exchange ESG Reporting Guide

Aspects, General Disclosure and KPIs		Disclosure chapters
Subject Area A. Environment Aspect		
Aspect A1 Emissions		
General Disclosure A1	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste	Environmental Management System; Reduction on the Discharge of Pollutants
KPI A1.1	Types of emissions and respective emissions data	Environmental Management System; Data
KPI A1.2	Green house emissions in total (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility)	Environmental Management System; Data
KPI A1.3	Total hazardous waste produced (in tonnes) and, where appropriate, density (e.g. per unit of production volume, per facility)	Environmental Management System; Data
KPI A1.4	Total non-hazardous waste produced (in tonnes) and, where appropriate, density (e.g. per unit of production volume, per facility)	Environmental Management System; Data
KPI A1.5	Description on measures to mitigate emissions and results achieved	Reduction on the Discharge of Pollutants
KPI A1.6	Description of how hazardous and non-hazardous wastes are handled, reduction initiatives and results achieved	Reduction on the Discharge of Pollutants
Aspect A2 Use of Resources		
General Disclosure A2	Policies on effective use of resources (including energy, water and other raw materials)	Environmental Management System; Resources Saving
KPI A2.1	Direct and/or indirect energy consumption by type (e.g. electricity, gas or oil) in total (KWH in '000s) and intensity (e.g. per unit of production volume, per facility)	Environmental Management System; Data
KPI A2.2	Total water consumption and intensity (e.g. per unit of production volume, per facility)	Environmental Management System; Data
KPI A2.3	Description on energy use efficiency initiatives and results achieved	Resources Saving
KPI A2.4	Description on whether there is any issue in sourcing water that is fit for purpose, water efficiency initiatives and results achieved	Resources Saving

Aspects, General Disclosure and KPIs		Disclosure chapters
KPI A2.5	Total packaging material used for finished products (in tonnes), and, if applicable, with reference to per unit produced	Data
Aspect A3 Environment and Natural Resources		
General Disclosure A3	Policies on minimizing the issuer's significant impact on the environment and natural resources	Environmental Management System; Resources Saving
KPI A3.1	Description on the significant impacts of activities on the environment and natural resources and actions taken to manage them	Resources Saving
Subject Area B. Society		
Aspect B1 Employment		
General Disclosure B1	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and other benefits and welfare	Employee Interests and Benefits
KPI B1.1	Total workforce by gender, employment type, age group and geographical region	Data
KPI B1.2	Employee turnover rate by gender, age group and geographical region	Data
Aspect B2 Health and Safety		
General Disclosure B2	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to providing a safe working environment and protecting employees from occupational hazards	Occupational Health and Safety
KPI B2.1	Number and rate of work-related fatalities	Data
KPI B2.2	Lost days due to work injury	Data
KPI B2.3	Description on occupational health and safety measures adopted, how they are implemented and monitored	Occupational Health and Safety

Aspects, General Disclosure and KPIs		Disclosure chapters
Aspect B3 Development and Training		
General Disclosure B3	Policies on improving employees' knowledge and skills for performing duties and work. Description on training activities	Career Training and Development
KPI B3.1	The percentage of employees trained by gender and employee category (e.g. senior management, middle management)	Data
KPI B3.2	The average training hours completed per employee by gender and employee category	Data
Aspect B4 Labor Standards		
General Disclosure B4	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to the prevention of child labor or forced labor	Employee Interests and Benefits
KPI B4.1	Description on measures to review employment practices to avoid child and forced labor	Employee Interests and Benefits
KPI B4.2	Description on steps taken to eliminate such violations when discovered	Free of Non-Compliance
Aspect B5 Supply Chain Management		
General Disclosure B5	Policies on managing environmental and social risks of the supply chain	Establishing a Sustainable Supply Chain; Assisting in the Growth of Suppliers
KPI B5.1	Number of suppliers by geographical region	Data
KPI B5.2	Description on practices relating to engaging suppliers, number of suppliers where the practices are being implemented, how they are implemented and monitored	Establishing a Sustainable Supply Chain
Aspect B6 Product Responsibility		
General Disclosure B6	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to health and safety, advertising, labeling and privacy matters relating to products and services provided and methods of redress	Product and Customer Service Responsibility
KPI B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons	Data

Aspects, General Disclosure and KPIs		Disclosure chapters
KPI B6.2	Number of received complaints related to products and services and solutions	Customer Services System
KPI B6.3	Description on practices related to observing and protecting intellectual property rights	Management and Protection of Intellectual Property Right
KPI B6.4	Description on quality assurance process and product recall procedures	Product Recall Mechanism
KPI B6.5	Description on consumer data protection and privacy policies, how they are implemented and monitored	Protection of Customers' Data Privacy
Aspect B7 Anti-corruption		
General Disclosure B7	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to prevention of bribery, extortion, fraud and money laundering	Formulation of a Compliance Culture; Anti-corruption
KPI B7.1	Number of concluded lawsuits regarding corrupt practices brought against the issuer or its employees during the reporting period and the outcomes of the cases	Data
KPI B7.2	Description on preventive measures and whistle blowing procedures, and how they are implemented and monitored	Formulation of a Compliance Culture; Anti-corruption
Aspect B8 Community Investment		
General Disclosure B8	Policies on community engagement to understand the needs of the communities where the issuer operates and to ensure its activities takes communities' interests into consideration	Enhancing the Accessibility of Medicines and Medical Services; Supporting the Development of Pharmaceutical Industry
KPI B8.1	Focus on contribution areas (e.g. education, environment, labor needs, health, culture and sports)	Enhancing the Accessibility of Medicines and Medical Services; Supporting the Development of Pharmaceutical Industry
KPI B8.2	Resources contributed (e.g. money and time) to the focus area	Enhancing the Accessibility of Medicines and Medical Services; Supporting the Development of Pharmaceutical Industry; Data

10. Notes on Report Preparation

This report is the third ESG Report published by 3SBio Inc., which aims to disclose to the stakeholders the efforts and achievements made by the Group in the sustainable development of economy, environment and society.

Basis of preparation

This report is prepared with reference to the Environmental, Social and Governance Reporting Guide issued by The Stock Exchange of Hong Kong Limited.

Scope of Report

Organizations: this report involves the major subsidiaries of the group, including Shenyang Sunshine Pharmaceutical Company Limited, Sunshine Guojian Pharmaceutical (Shanghai) Co., Ltd., National Engineering Research Center of Shanghai Antibody Medicine, Zhejiang Wansheng Pharmaceutical Co., Ltd. and Shenzhen Sciprogen Bio-pharmaceutical Co., Ltd..

Reporting period: from 1 January 2018 to 31 December 2018.

Major Subsidiaries	Abbreviation in this report
Shenyang Sunshine Pharmaceutical Company Limited	Shenyang Sunshine
Sunshine Guojian Pharmaceutical (Shanghai) Co., Ltd.	Sunshine Guojian
National Engineering Research Center of Shanghai Antibody Medicine	NERC
Zhejiang Wansheng Pharmaceutical Co., Ltd.	Zhejiang Wansheng
Shenzhen Sciprogen Bio-pharmaceutical Co., Ltd.	Sciprogen

Data descriptions

Data and cases in this Report are originated from the Group's original records in its daily operation or the Group's financial reports.

Base currency in this report is RMB (Yuan).

In case of any inconsistency in fnancial data between this report and the Annual Report of the Company, the Annual Report shall prevail.

Reporting Principles

This report complies with the reporting principles of the Hong Kong Stock Exchange ESG Reporting Guide, including:

- Principle of Materiality

  According to this principle, this report addresses the issues on which the report needs to focus through stakeholder survey and materiality analysis, and places emphasis on reporting the matters in the areas of the environment, society and governance that may have material impact on investors and other stakeholders.

- Principle of Quantification

  Based on this principle, this report discloses key performance indicators and gives illustrations on the indicators with explanations on the calculation basis and the assumptions.

- Principle of Balance

  Based on this principle, the contents of this report reflect the facts and disclose indicators with both positive and negative information.

- Principle of Consistency

  Based on this principle, this report gives illustrations on the meanings of key performance indicators as disclosed with explanations on the calculation basis and the assumptions, while maintaining consistency on the indicators adopted in different reporting periods to reflect the trend of performance standard.