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BIOCYTOGEN PHARMACEUTICALS (BEIJING) CO., LTD.

百奧賽圖(北京)醫藥科技股份有限公司

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

(Stock Code: 2315)

ANNOUNCEMENT OF ANNUAL RESULTS FOR THE YEAR ENDED DECEMBER 31, 2022

The board (the "**Board**") of directors (the "**Director(s)**") of Biocytogen Pharmaceuticals (Beijing) Co., Ltd. (the "**Company**" or "**Biocytogen**") is pleased to announce the audited consolidated annual results of the Company and its subsidiaries (together, the "**Group**") for the year ended December 31, 2022 (the "**Reporting Period**"), together with audited comparative figures for the same period of 2021.

FINANCIAL HIGHLIGHTS

	Year ended December 31, 2022 *RMB'000*	Year ended December 31, 2021 *RMB'000*	Year-on-year change
Revenue	**533,881**	354,555	50.6%
Gross profit	**391,750**	247,440	58.3%
Loss before taxation	**(601,353)**	(545,643)	(10.2%)
Loss for the year	**(602,157)**	(545,643)	(10.4%)
Loss for the year attributable to equity shareholders of the Company	**(601,945)**	(545,576)	(10.3%)
Total comprehensive income for the year	**(600,716)**	(545,062)	(10.2%)
Loss per share			
Basic and diluted (RMB)	**(1.58)**	(1.51)	(4.6%)

CONSOLIDATED STATEMENTS OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME

For the year ended 31 December 2022 (Expressed in RMB)

	Note	**2022**	2021
		RMB'000	*RMB'000*
Revenue	*3*	**533,881**	354,555
Cost of sales		**(142,131)**	(107,115)
Gross profit	*3(b)*	**391,750**	247,440
Other gains and losses, net	*4*	**86,710**	25,569
Net change in fair value of biological assets	*5*	**3,923**	9,812
Selling and marketing expenses		**(50,248)**	(42,032)
General and administrative expenses		**(263,412)**	(188,120)
Research and development expenses		**(699,167)**	(558,485)
Loss from operations		**(530,444)**	(505,816)
Finance costs	*6(a)*	**(56,139)**	(39,425)
Share of loss of associates		**(14,770)**	(402)
Loss before taxation	*6*	**(601,353)**	(545,643)
Income tax	*7*	**(804)**	–
Loss for the year		**(602,157)**	(545,643)
Other comprehensive income for the year (after tax)			
– Exchange differences on translation of financial statements of foreign operations		**1,441**	581
Total comprehensive income for the year		**(600,716)**	(545,062)
Loss for the year attributable to:			
Equity shareholders of the Company		**(601,945)**	(545,576)
Non-controlling interests		**(212)**	(67)
Loss for the year		**(602,157)**	(545,643)
Total comprehensive income for the year attributable to:			
Equity shareholders of the Company		**(600,504)**	(544,995)
Non-controlling interests		**(212)**	(67)
Total comprehensive income for the year		**(600,716)**	(545,062)
Loss per share			
Basic and diluted (RMB)	*8*	**(1.58)**	(1.51)

CONSOLIDATED STATEMENTS OF FINANCIAL POSITION

At 31 December 2022
(Expressed in RMB)

	Note	At 31 December	
		2022	2021
		RMB'000	*RMB'000*
Non-current assets			
Property, plant and equipment		**1,599,079**	1,390,945
Intangible assets		**30,652**	6,055
Interests in associates		**197,944**	9,685
Other non-current assets		**52,861**	21,860
		1,880,536	1,428,545
Current assets			
Inventories		**18,604**	15,140
Contract costs		**41,361**	41,812
Biological assets		**76,498**	68,131
Trade receivables	*10*	**107,682**	103,089
Prepayments and other receivables		**40,332**	79,621
Other financial assets		**8,198**	100,000
Cash at bank and on hand		**626,621**	466,445
		919,296	874,238
Current liabilities			
Trade and bills payables	*11*	**146,190**	102,441
Contract liabilities		**56,377**	61,581
Other payables		**231,072**	255,640
Bank and other loans		**126,665**	–
Lease liabilities		**44,938**	26,897
Current taxation		**804**	–
		606,046	446,559
Net current assets		**313,250**	427,679
Total assets less current liabilities		**2,193,786**	1,856,224
Non-current liabilities			
Deferred income		**89,934**	92,797
Lease liabilities		**191,507**	62,902
Long-term payables		**709,359**	448,554
Bank and other loans		**52,170**	–
		1,042,970	604,253
NET ASSETS		**1,150,816**	1,251,971
CAPITAL AND RESERVES			
Share capital	*12*	**399,398**	374,930
Reserves		**746,867**	872,278
Total equity attributable to equity shareholders of the Company		**1,146,265**	1,247,208
Non-controlling interests		**4,551**	4,763
TOTAL EQUITY		**1,150,816**	1,251,971

NOTES

1 GENERAL INFORMATION

Biocytogen Pharmaceuticals (Beijing) Co., Ltd. (百奧賽圖(北京)醫藥科技股份有限公司) (the "**Company**"), formerly known as Beijing Biocytogen Company Limited ("**Biocytogen Limited**", 北京百奧賽圖基因生物技術有限公司), was established on 13 November 2009 in the People's Republic of China (the "**PRC**") and was converted into a joint stock company on 29 December 2020.

The Company and its subsidiaries (together, the "**Group**") are principally engaged in providing gene editing services, pre-clinical pharmacology and efficacy evaluation services, animal models selling, antibody development and innovative biologic drug research and development.

The Company was listed on the Main Board of The Stock Exchange of Hong Kong Limited (the "**Stock Exchange**") (stock code: 2315.HK) on 1 September 2022.

2 SIGNIFICANT ACCOUNTING POLICIES

(a) Statement of compliance

These financial statements have been prepared in accordance with all applicable International Financial Reporting Standards ("**IFRSs**"), which collective term includes all applicable individual International Financial Reporting Standards, International Accounting Standards ("**IASs**") and Interpretations issued by the International Accounting Standards Board (the "**IASB**") and the disclosure requirements of the Hong Kong Companies Ordinance. These financial statements also comply with the applicable disclosure provisions of the Rules Governing the Listing of Securities on the Stock Exchange (the "**Listing Rules**").

The IASB has issued certain amendments to IFRSs that are first effective or available for early adoption for the current accounting period of the Group. The Group has adopted these amendments consistently for the periods presented. None of these developments have had a material impact to the financial statements of the Group. The Group has not applied any new amendments that are not yet effective for the current accounting period.

(b) Basis of preparation of the financial statements

The consolidated financial statements for the year ended 31 December 2022 comprise the Company and its subsidiaries and the Group's interest in an associate.

The measurement basis used in the preparation of the consolidated financial statements is the historical cost basis except that the following assets and liabilities are stated at their fair value as explained in the accounting policies set out below:

– biological assets;

– other investment in debt and equity securities; and

– derivative financial instruments.

The preparation of consolidated financial statements in conformity with IFRSs requires management to make judgements, estimates and assumptions that affect the application of policies and reported amounts of assets, liabilities, income and expenses. The estimates and associated assumptions are based on historical experience and various other factors that are believed to be reasonable under the circumstances, the results of which form the basis of making the judgements about carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimate is revised if the revision affects only that period, or in the period of the revision and future periods if the revision affects both current and future periods.

Judgements made by management in the application of IFRSs that have significant effect on the consolidated financial statements and major sources of estimation uncertainty are discussed.

(c) Changes in accounting policies

The group has applied the following amendments to IFRSs issued by the IASB to these financial statements for the current accounting period:

Amendments to IAS 16, *Property, plant and equipment: Proceeds before intended use*

Amendments to IAS 37, *Provisions, contingent liabilities and contingent assets: Onerous contracts — cost of fulfilling a contract.*

3 REVENUE AND SEGMENT REPORTING

(a) Revenue

The Group is principally engaged in providing gene editing services, pre-clinical pharmacology and efficacy evaluation services, selling animal models, antibody development and innovative drugs development. Currently the Group have no products approved for commercial sale and have not generated any revenue from sales of innovative drugs.

Disaggregation of revenue from contracts with customers by major service lines is as follows:

	Year ended 31 December	
	2022	2021
	RMB'000	*RMB'000*
Gene editing	**61,075**	51,146
Pre-clinical pharmacology and efficacy evaluation	**176,069**	105,607
Animal models selling	**169,328**	107,555
Antibody development	**126,887**	88,606
Others	**522**	1,641
	533,881	354,555

For the year ended 31 December 2022, one customer had transactions with the Group which exceeded 10% of the Group's revenue, amounting to RMB70,000,000.

The aggregated amount of the transaction price allocated to the remaining performance obligations under the Group's existing contract was RMB177,111,884 as at 31 December 2022, (2021: RMB166,730,448). These amounts represented revenue expected to be recognised in the future from unsatisfied contracts of antibody development revenue and were expected to be recognised within 3 years.

(b) Segment reporting

The Group manages its businesses by business lines. In a manner consistent with the way in which information is reported internally to the Group's most senior executive management for the purposes of resource allocation and performance assessment, the Group has presented the following five reportable segments. No operating segments have been aggregated to form the following reportable segments.

- ***Gene editing services***

  This segment provides the customized gene editing services based on animals as well as cells to meet the needs of basic science research and drug development of the customers.

- ***Pre-clinical pharmacology and efficacy evaluation***

  This segment provides the pre-clinical pharmacology service for drug efficacy and toxicity evaluation.

- ***Animal models selling***

  This segment breeds and sells the animal models for the external and internal use, including set of genetically engineered mice, disease mouse models and aged small animals. This segment also out-licenses certain animal models to customers.

- ***Antibody development***

  This segment utilizes the Group's own antibody discovery platforms to identify antibodies which have the potential to become our drug candidates and out-license or collaborate with partners for potential therapeutic antibody molecules.

- ***Innovative drugs development***

  This segment is engaged in research and development of innovative drugs with a focus on oncology and autoimmune disease therapeutics.

(i) Segments results

For the purposes of assessing segment performance and allocating resources between segments, the Group's most senior executive management monitors the results attributable to each reportable segment on the following bases:

Revenue and expenses are allocated to the reportable segments with reference to sales generated by those segments and the expenses incurred by those segments. The measure used for reporting segment result is gross profit.

The Group's other operating income and expenses, such as other gains and losses, net and selling and administrative expenses, and assets and liabilities are not measured under individual segments. Accordingly, neither information on segment assets and liabilities nor information concerning capital expenditure, interest income and interest expenses is presented.

Disaggregation of revenue from contracts with customers by the timing of revenue recognition, as well as information regarding the Group's reportable segments as provided to the Group's most senior executive management for the purposes of resource allocation and assessment of segment performance during the year is set out below.

	Year ended 31 December 2022					
	Gene editing *RMB'000*	Pre-clinical pharmacology and efficacy evaluation *RMB'000*	Animal models selling *RMB'000*	Antibody development *RMB'000*	Others *RMB'000*	Total *RMB'000*
Disaggregated by timing of revenue recognition						
Point in time	**61,075**	**176,069**	**169,328**	**126,887**	**522**	**533,881**
Revenue from external customers	**61,075**	**176,069**	**169,328**	**126,887**	**522**	**533,881**
Inter-segment revenue	**–**	**–**	**32,927**	**–**	**–**	**32,927**
Reportable segment revenue	**61,075**	**176,069**	**202,255**	**126,887**	**522**	**566,808**
Reportable segment gross profit	**26,046**	**123,373**	**134,947**	**107,909**	**248**	**392,523**

	Year ended 31 December 2021					
	Gene editing *RMB'000*	Pre-clinical pharmacology and efficacy evaluation *RMB'000*	Animal models selling *RMB'000*	Antibody development *RMB'000*	Others *RMB'000*	Total *RMB'000*
Disaggregated by timing of revenue recognition						
Point in time	51,146	105,607	107,555	88,606	1,641	354,555
Revenue from external customers	51,146	105,607	107,555	88,606	1,641	354,555
Inter-segment revenue	–	–	21,103	–	–	21,103
Reportable segment revenue	51,146	105,607	128,658	88,606	1,641	375,657
Reportable segment gross profit	23,964	66,022	86,678	71,110	1,034	248,808

(c) Geographic information

The following tables set out information about the geographical location of the Group's revenue from external customers. The geographical information on the revenue by external customers' respective country/region of domicile is as follows:

	Year ended 31 December	
	2022	*2021*
	RMB'000	*RMB'000*
The PRC	**287,736**	218,997
The United States of America ("**USA**")	**178,993**	102,118
Others	**67,152**	33,440
	533,881	354,555

The geographical location of the specified non-current assets is based on the physical location of the asset, in the case of property, plant and equipment, and the location of the operation to which they are allocated, in the case of intangible assets.

	As at 31 December	
	2022	2021
	RMB'000	*RMB'000*
The PRC	**1,453,038**	1,387,873
USA	**176,693**	9,127
	1,629,731	1,397,000

4 OTHER GAINS AND LOSSES, NET

	Year ended 31 December	
	2022	2021
	RMB'000	*RMB'000*
Net (loss)/gain on disposal of property, plant and equipment	**(82)**	385
Change in fair value of financial assets at FVTPL	**19,269**	1,507
Interest income	**2,167**	12,506
Government grants (including amortisation of deferred income)	**15,076**	12,632
Gain on disposal of financial assets at FVTPL	**–**	627
Gains on disposal of interests in a subsidiary and an associate	**25,427**	–
Net realized losses on derivative financial instruments	**(2,414)**	–
Net foreign exchange gain/(loss)	**27,374**	(1,776)
Others	**(107)**	(312)
	86,710	25,569

5 NET CHANGE IN FAIR VALUE OF BIOLOGICAL ASSETS

Net change in fair value of biological assets represents the difference in fair value from the beginning to the end of the year. For the years ended 31 December 2022, net fair value change consists of (i) negative realised fair value changes of RMB56,011,000 (2021: RMB46,206,000) and (ii) positive unrealised fair value changes of, RMB59,934,000 (2021: RMB56,018,000).

6 LOSS BEFORE TAXATION

Loss before taxation is arrived at after charging/(crediting):

(a) Finance costs

	Year ended 31 December	
	2022	2021
	RMB'000	*RMB'000*
Interest on long-term payables	**39,916**	31,762
Interest on lease liabilities	**12,942**	7,663
Interest on bank and other loans	**3,281**	–
	56,139	39,425

(b) Staff costs

	Year ended 31 December	
	2022	2021
	RMB'000	*RMB'000*
Salaries, wages and other benefits	**371,091**	298,687
Contributions to defined contribution retirement schemes *(Notes)*	**33,491**	23,521
Equity-settled share-based payment expenses	**15,313**	27,752
	419,895	349,960

Notes:

As stipulated by the regulations of the PRC, the Company and its subsidiaries in the PRC participates in a defined contribution retirement plan organised by municipal and provincial governments for its employees. The Group is required to make contributions to the retirement plans at certain percentages of the salaries, bonuses and certain allowances of the employees during the year.

Subsidiaries in the USA implemented a defined contribution 401(k) savings plan (the "**401(k) Plan**") for U.S. employees. The 401(k) Plan covers all U.S. employees, and allows participants to defer a portion of their annual compensation on a pretax basis. In addition, the Group implemented a matching contribution to the 401(k) Plan, matching employee's contribution up to a maximum of 5% of the participant's compensation.

(c) Other items

	Year ended 31 December	
	2022	2021
	RMB'000	*RMB'000*
Depreciation charge on property, plant and equipment	**171,034**	126,481
Amortisation cost of intangible assets	**3,065**	1,616
Recognition of expected credit losses on trade receivables and other receivables	**1,422**	3,115
Impairment of inventories and contract costs	**3,387**	1,807
Cost of inventories	**189,259**	150,671
Auditors' remuneration	**3,000**	–

7 INCOME TAX IN THE CONSOLIDATED STATEMENTS OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME

(a) Taxation in the consolidated statements of profit or loss and other comprehensive income represents:

	Year ended 31 December	
	2022	2021
	RMB'000	*RMB'000*
Current tax		
Provision for the year	**804**	–
	804	–

(b) Reconciliation between tax expense and accounting losses at applicable tax rates:

	Year ended 31 December	
	2022	*2021*
	RMB'000	*RMB'000*
Loss before taxation	**601,353**	545,643
Notional tax on loss before taxation at PRC statutory tax rate *(note (i))*	**150,338**	136,411
Tax effect of different tax rates *(note (ii) and (iii))*	**(36,716)**	(34,017)
Tax effect of non-deductible expenses	**(9,038)**	(321)
Utilization of tax losses not recognised in prior years	**2,181**	1,788
Tax effect of unused tax losses and temporary differences not recognised	**(184,768)**	(145,005)
Additional tax deduction on research and development expenses *(note (iv))*	**77,199**	41,144
	(804)	–

Notes:

(i) The Company and its subsidiaries established in the PRC are subject to PRC Corporate Income Tax rate of 25% during the year.

(ii) The subsidiaries of the Group incorporated in the USA are subject to Federal Income Tax and State Income Tax. The federal income tax rate was 21% and the state income tax rate was 8% during the year. The subsidiary of the Group incorporated in Germany is subject to Coporate Income Tax, Solidarity Surcharge and Trade Tax, with the tax rate at 15% of taxable income, 5.5% of corporate income tax and 14% of taxable income in Heidelberg during the year.

(iii) The PRC Corporate Income Tax Law allows enterprises to apply for certificate of "High and New Technology Enterprise" ("**HNTE**"), which entitles the qualified companies to a preferential income tax rate of 15%, subject to fulfilment of the recognition criteria.

The Company and its subsidiary of Biocytogen Jiangsu Co., Ltd. were qualified as a HNTE and accordingly are entitled to the preferential tax rate of 15% during the year.

(iv) According to the relevant tax rules in the PRC, qualified research and development expenses are allowed for additional tax deduction based on 75%-100% of such expenses during the year.

8 LOSS PER SHARE

(a) Basic loss per share

The calculation of the basic loss per share is based on the loss for the year attributable to ordinary equity shareholders of the Company of RMB601,945,000 (2021: RMB545,576,000) and the weighted average number of ordinary shares in issue during the year, calculated as follows:

(b) Weighted average number of ordinary shares

	As at 31 December	
	2022	2021
	RMB'000	*RMB'000*
Ordinary shares in issue at 1 January	**374,930**	360,000
Effect of ordinary shares issued	**6,117**	2,411
Effect of the shares purchased for share incentive plan	**(43)**	–
Weighted average number of ordinary shares in issue at 31 December	**381,004**	362,411

(c) Diluted loss per share

No diluted earnings per share for both 2022 and 2021 were presented as there were no potential ordinary shares in existence during both years.

9 DIVIDENDS

No dividends have been declared or paid by the Company during the years ended 31 December 2022 (2021: nil).

10 TRADE RECEIVABLES

	As at 31 December	
	2022	2021
	RMB'000	*RMB'000*
Trade receivables due from		
– third parties	**114,750**	108,719
Less: loss allowance	**(7,068)**	(5,630)
	107,682	103,089

Ageing analysis

The Group generally provides a credit period of 0 – 90 days to its trade customers. The ageing analysis of trade receivables, based on the earlier of invoice date or revenue recognition date and net of allowance for doubtful debts, is as follows:

	As at 31 December	
	2022	2021
	RMB'000	*RMB'000*
Within 1 year	**97,183**	95,412
1 to 2 years	**9,157**	6,482
2 to 3 years	**1,342**	1,195
	107,682	103,089

11 TRADE AND BILLS PAYABLES

	As at 31 December	
	2022	2021
	RMB'000	*RMB'000*
Trade payables due to		
– related parties	**533**	1,609
– third parties	**104,968**	52,283
Bills payable	**40,689**	48,549
	146,190	102,441

Ageing analysis

At 31 December 2021 and 2022, the ageing analysis of trade payables, based on the invoice date, is as follows:

	As at 31 December	
	2022	2021
	RMB'000	*RMB'000*
Within 1 year	**145,467**	101,785
After 1 year but within 2 years	**312**	478
After 2 years but within 3 years	**411**	87
After 3 years	**–**	91
	146,190	102,441

12 SHARE CAPITAL

	Number of ordinary shares *'000*	Share capital *RMB'000*
Issued and fully paid:		
At 1 January 2021	360,000	360,000
Issue of new shares (i)	14,930	14,930
At 31 December 2021	374,930	374,930
Issue of new shares (ii)	24,468	24,468
At 31 December 2022	**399,398**	**399,398**

(i) On 31 May 2021, the Company entered into the cross-over round investment agreement, pursuant to which the investors subscribed 14,930,000 ordinary shares of the Company at a total investment of RMB311,040,000, with RMB14,930,000 and RMB296,110,000 credited to the Company's share capital and share premium respectively.

(ii) In September 2022, the Company completed the initial public offering of 24,468,500 overseas listed foreign shares (H shares), which were listed and traded on the main board of the Stock Exchange. The gross proceeds received from the Stock Exchange was HK$617,095,570 (equivalent to RMB542,064,655), and the gross proceeds received by the Company net of the listing expense attributed to equity was RMB500,696,819, of which RMB24,468,500 was recognised as share capital.

MANAGEMENT DISCUSSION AND ANALYSIS

I. Business Overview

OVERVIEW

Founded in 2009, we are a global biotechnology company that drives the R&D of novel antibody-based drugs and revenue-generating pre-clinical research services company. In contrast to traditional chemical drugs, where drug manufacturers synthesize the drug via precise formulas, biologics are manufactured in living organisms and are larger, more complex molecules. In addition, the pre-clinical research service industry is mainly composed of the CRO services prior to the IND, which includes drug discovery and pre-clinical services. Drug discovery is a systematical process that requires interdisciplinary efforts to design effective and commercially feasible drugs, and early drug discovery is the fundamental of drug discovery.

Our business model, correspondingly, consists of drug development business and pre-clinical research services, which are two distinctive business segments. Our drug development business includes (i) antibody development business that we utilize our own antibody discovery platforms RenMice to form 400,000 to 500,000 antibody sequences library for more than 1,000 targets which have the potential to identify potential therapeutic antibody molecules and via out-licensing or collaboration with partners to suit their various antibody modalities and continuous innovation requirements; (ii) research and development of oncology and autoimmune disease therapeutics. We are aimed at advancing clinical development and commercialization through collaboration with other pharmaceutical companies. Our pre-clinical research services include gene editing, pre-clinical pharmacology and efficacy evaluation, and animal models selling. Our capabilities are validated through our years of services to multinational companies and domestic biotechnology companies and evidenced by our in-house clinical-stage drug candidates.

PRODUCTS AND PIPELINE

As of December 31, 2022, we had strategically designed and built a selective antibody drug pipeline of 11 drug candidates, including six clinical stage candidates and five pre-clinical stage candidates.

Four out of our drug candidates are with out-licensing arrangements with different collaborators. All of our drug candidates were discovered through our own antibody discovery platforms. Relying on our unique antibody development platform, we continue to generate more promising antibody drug molecules for innovative drug targets. Through the large animal translational medicine platform, we continue to improve the success rate of clinical translation. On the other hand, our overall R&D strategy is to self-direct the early clinical development of drug molecules, and then enter into co-development/transfer development with biotech and biopharmaceutical companies which will primarily drive the acceleration of the Phase II/III clinical development and commercialization of individual antibody drug molecules. We currently have no plans to invest our own resources to lead Phase III clinical development and commercialization in the near future.

Our pipeline includes drug candidates targeting novel targets or drug candidates with differentiated efficacy or safety profiles demonstrated in clinical studies. Our Core Products include (i) YH003, a humanized IgG2 agonistic monoclonal antibody targeting the CD40, a costimulatory protein found on antigen-presenting cells; and (ii) YH001, a humanized anti-CTLA-4, IgG1 monoclonal antibody. In addition to internal development, we intend to proactively explore and build strategic and synergistic partnerships with leading biopharmaceutical companies. We believe that the complementary expertise and resources of our partners and us will increase the success probability of our drug candidates and maximize their clinical and commercial value on a global scale.

The following chart summarizes our pipeline and the development status of each drug candidate as of the date of this announcement:

	Candidate	Target	Combination	Indication	Pre-clinical	IND	Phase I	Phase II	Phase III	Partner	Reserved rights
Clinical-stage Drug Candidates	★ YH003	CD40	PD-1+chemo	Pancreatic ductal adenocarcinoma	Global MRCT						Global
			PD-1+chemo	Mucosal melanoma	China						
			PD-1+YH001	Solid tumors	Global MRCT						
	★ YH001	CTLA-4	PD-L1+chemo	Sarcoma	America					TRACON North American rights	Outside North American
	YH002	OX40	YH001	Solid tumors	Global MRCT						Global
			YH003+YH001	Intratumoral Immunotherapy	IND					syncromune	
	YH004	4-1BB	Monotherapy	Solid tumor + hematological malignancy	Australia and China						Global
	YH005-ADC	Claudin18.2-ADC		Solid tumors	Australia and China					RemeGen 荣昌生物	
	YH008	PD-1x CD40 BsAb	Monotherapy	Solid tumors	America and China					微芯新域 NEWAY Greater China region rights	Outside Greater China
Preclinical Drug Candidates	YH012	HER2 x TROP2 BsADC		Solid tumors	CMC						Global
	YH013	EGFR x MET BsADC		Solid tumors	CMC						Global
	YH015	CD40 inhibitor		Autoimmunity	CMC						Global
	YH016	Undisclosed		Oncology	Discovery						Global
	YH017	Undisclosed		Autoimmunity	Discovery						Global

Notes: ★ Core Product; Out-licensing/Co-development; Oncology; Non-oncology

1 Biocytogen and Tracon have partnered to develop YH001 for selected indications and Biocytogen will receive a double-digit tiered net sales royalty on the North American market. Biocytogen retains development and commercialization rights outside of North America.

2 Biocytogen has granted Syncromune the rights for development and commercialization of the intratumoral combination therapy containing YH002. Biocytogen is entitled to receive upfront payments, milestone payments, and tiered net sales royalties.

3 Biocytogen has licensed the YH005 antibody to RemeGen and has received upfront payments and milestone payments. Biocytogen is entitled to collect more licensing fee from RemeGen for the development of YH005-ADC.

4 Biocytogen is in collaboration with ISU ABXIS to develop a tri-specific antibody based on the YH003 sequence.

5 Biocytogen and Chipscreen Biosciences Co., Ltd.'s holding company, Chipscreen NewWay, have reached an exclusive clinical development and commercialization agreement for the YH008 bispecific antibody in Greater China, including mainland China, Hong Kong, Macau, and Taiwan. Biocytogen retains global rights for YH008 outside of Greater China.

6 Full term of each abbreviation used:

CD40:	Cluster of Differentiation 40
CTLA-4:	Cytotoxic T-Lymphocyte-Associated protein 4
OX40:	Also known as TNFRSF4, Tumor Necrosis Factor Receptor Superfamily, member 4
4-1BB:	Also known as TNFRSF9, Tumor Necrosis Factor Receptor Superfamily, member 9
Claudin18.2:	Also known as CLDN18.2, an isoform of Claudin18
PD-1:	Programmed Death-1
HER2:	Human epidermal growth factor receptor 2
TROP2:	Human trophoblast cell-surface glycoprotein 2
EGFR:	Epidermal Growth Factor Receptor
MET:	Mesenchymal-Epithelial Transition Factor
ADC:	Antibody Drug Conjugate
CMC:	Chemistry, Manufacturing, and Controls
MRCT:	Multi-regional Clinical Trial(s)

PRODUCTS SELF-DEVELOPED

Our Core Products

YH003 – a humanized IgG2 agonistic monoclonal antibody targeting CD40

YH003 is one of our Core Products. YH003 is a recombinant, humanized agonistic anti – CD40 IgG2 monoclonal antibody (mAb).

We initiated the research and development of YH003 in 2017. We are conducting a Phase I clinical trial in Australia to evaluate the safety, tolerability, efficacy and pharmacokinetics of YH003 in combination with toripalimab in patients with advanced solid tumors, with the RP2D identified in April 2021. Data from the Phase I clinical trial demonstrated a favorable safety and efficacy profile of YH003. We also obtained the IND approval from the NMPA for a Phase I clinical trial of YH003 in advanced solid tumor patients in China.

Data from the Phase I clinical trial combined with PD-1 in Australia is set out below. The study was completed and database lock was performed in August 22, 2022. A total of 26 patients (20 in part I dose escalation stage and 6 in part II expansion stage) were enrolled and received at least 1 dose of trial treatment. Subjects in part I dose escalation stage received YH003 at 0.03, 0.1, 0.3, 1 and 3mg/kg and Toripalimab at a fixed dose of 240mg. Only one DLT was reported from 1 subject in Part 1 dose escalation stage, with grade 3 hypertransaminasemia from cohort 4 of 1 mg/kg dose during the run-in phase, and recovered one month later. No MTD was achieved during the part I dose escalation stage and RP2D was determined 0.3mg/kg. Most of these TEAEs are mild or moderate, grade 1-2. Grade 3 or above were reported in 65.0% subjects in part I and 16.7% subjects in part II. 10 subjects (n=10, 50.0%) experienced serious TEAEs in part I dose escalation stage and 1 subject (n=1, 16.7%) experienced serious TEAEs in part II expansion stage. None are treatment-related serious TEAEs in both part I and part II.

PR was observed in 2 subjects. One subject with ocular melanoma achieved PR since the first tumor assessment in week 10. It was notable that this subject achieved a tumor assessment of CR in August 2022, after nearly 2 years of study treatment. The other subject with NSCLC achieved PR at first tumor assessment in week 10. SD was observed in 3 subjects with Merkel cell carcinoma, NSCLC and gastroesophageal cancer, respectively. Among them, the subject with NSCLC, his SD was recorded up until database lock.

We received the IND approval for the Phase II MRCT from the U.S. FDA in June 2021, from the TGA in August 2021, from the MedSafe in November 2021, from the NMPA in October 2021 and from the Taiwan FDA in November 2021. We are conducting a Phase II MRCT in patients PDAC to explore safety and the efficacy of YH003 in combination with toripalimab in the U.S., mainland China, Australia, New Zealand, and Taiwan and have completed the dosing of the first patient in Australia in December 2021.

Phase II international multicenter study of YH003 in combination with toripalimab in patients with PDAC was designed to evaluate the antitumor activity of YH003 in combination with toripalimab with or without chemotherapy in subjects with PDAC. As of December 31, 2022, the first-line treatment 2C cohort for pancreatic cancer enrolled a total of 47 subjects; the second-line treatment 2B cohort for pancreatic cancer enrolled a total of 45 subjects.

Phase II clinical trial of YH003 in combination with PD-1 plus chemotherapy for the treatment of mucosal melanoma in China to evaluate the efficacy and safety of YH003 in combination with pembrolizumab and albumin paclitaxel in the first-line treatment of patients with unresectable/metastatic mucosal melanoma. As of December 31, 2022, 9 evaluable subjects in this study initially showed a good clinical benefit, no new safety signals, and good safety and tolerability.

YH003 in combination with PD-1 and YH001 for the treatment of advanced solid tumors, a Phase I international multicenter clinical trial in China and Australia designed to evaluate the safety, tolerability and pharmacokinetics of the combination of YH003, YH001 and pembrolizumab in subjects with advanced solid tumors. As of December 31, 2022, a total of 12 subjects have been enrolled.

YH003 – Collaboration with ISU ABXIS

In 2022, we entered into collaboration with ISU ABXIS Co., Ltd ("**ISU ABXIS**") to grant ISU ABXIS to use the sequence of YH003 to construct several sets of tri-specific antibodies through its technology platform for the development of therapeutic agents against a variety of tumor types.

WE MAY NOT BE ABLE TO ULTIMATELY DEVELOP AND MARKET YH003 SUCCESSFULLY.

Other Products

YH004 – a humanized anti-4-1BB Agonists

YH004 is a humanized anti-4-1BB IgG1 antibody, with a unique mechanism of action that differentiates itself from other anti-4-1BB antibodies.

We have initiated a Phase I clinical trial of YH004 in Australia and have completed the dosing of the first patient in December 2021. We have also received IND approval from the U.S. FDA in October 2021. We have received the approval for the IND applications by the NMPA on January 7, 2022. The Phase I clinical trial is a FIH, multi-center, open-label and Phase I dose escalation study of YH004 as a single agent in subjects with advanced solid tumors or relapsed/refractory non-Hodgkin lymphoma. We are also conducting for a Phase I clinical trial of YH004 in China. As of December 31, 2022, 8 subjects were enrolled and received 0.01 mg/kg (n=1), 0.03 mg/kg (n=1), 0.1 mg/kg (n=3), and 0.3 mg/kg (n=3) dosing. 2 subjects had a best efficacy assessment of SD. All adverse events associated with YH004 were mild or moderate (Grade 1 or 2).

WE MAY NOT BE ABLE TO ULTIMATELY DEVELOP AND MARKET YH004 SUCCESSFULLY.

YH012 and YH013 – two bi-specific ADCs

YH012 and YH013 are two bi-specific ADCs developed using our RenLite platform, which are intended for the treatment of solid tumor. YH012 and YH013 are currently at the CMC stage.

WE MAY NOT BE ABLE TO ULTIMATELY DEVELOP AND MARKET YH012 AND YH013 SUCCESSFULLY.

YH015 – a fully human IgG1 antagonistic monoclonal antibody targeting CD40

YH015 is based on RenMice our fully human antibody mouse platform and a unique *in vivo* drug screening strategy to rapidly obtain fully human antibodies with good *in vivo* and *in vitro* inhibitory activity and physicochemical properties. Meanwhile, the mutation modification of the Fc end of the antibody reduced the ADCC effect, prolonged the half-life of the drug, reduced the frequency of dosing, and had better clinical application value. CD40 inhibitors have the potential to be developed into drugs for autoimmune diseases, multiple sclerosis and organ transplantation. YH015 is currently at the CMC stage.

WE MAY NOT BE ABLE TO ULTIMATELY DEVELOP AND MARKET YH015 SUCCESSFULLY.

YH016 and YH017 – two novel molecules

YH016 and YH017 are two novel molecules developed using our RenMice platform, which are intended for the treatment of solid tumor and immune diseases respectively. YH016 and YH017 are currently at the discovery stage.

WE MAY NOT BE ABLE TO ULTIMATELY DEVELOP AND MARKET YH016 and YH017 SUCCESSFULLY.

PRODUCTS CO-DEVELOPED

Our Core Products

YH001 – a humanized anti-CTLA-4 IgG1 monoclonal antibody

YH001 is one of our Core Products. YH001 is a recombinant humanized anti-CTLA-4 IgG1 monoclonal antibody.

We initiated the research and development process of YH001 in 2017. We completed a Phase I clinical trial in Australia to evaluate the safety, tolerability and pharmacokinetics of YH001 when combined with toripalimab in patients with advanced solid tumors, with the RP2D identified in April 2021. Data from the Phase I clinical trial showed a favorable safety and efficacy profile of YH001.

Data from the Phase I of YH001 combined with PD-1 in Australia is set out below. As of the data as cut-off date of December 31, 2022, YH001 was well tolerated up to 4.0 mg/kg dose levels when combined with toripalimab. Among 26 evaluable patients out of 29 enrolled patients, five patients achieved PR and 11 patients achieved SD. We are conducting a Phase I clinical trial of YH001 as a single agent in patients with advanced solid tumors in China. YH001 was well tolerated up to 6.0 mg/kg dose levels.

We received the U.S. FDA approval in June 2021, the Taiwan FDA approval in October 2021 and the NMPA approval in November 2021 for the Phase II clinical trial. We have reached an agreement with Tracon in the United States to explore indications such as sarcoma and other indications. The Phase I/II clinical trial of YH001 in combination with envafolimab and doxorubicin for the treatment of soft tissue sarcoma patients was approved by FDA in August 2022, and dosed the first patient in November 2022.

In addition, we intend to explore research in more types of indications through more co-development with existing and more partners.

YH001 – Collaboration with Tracon

Study on YH001/KN035SAR101 is a Phase I/II clinical trial sponsored by Tracon Pharmaceuticals expected to enroll 176 patients at multiple cancer centers in the U.S.. The primary objective of the Phase I portion of the study is to evaluate safety and tolerability and determine the recommended Phase II dose of YH001 when given in combination with the PD-L1 antibody envafolimab or given in combination with envafolimab and doxorubicin in patients with advanced or metastatic sarcoma. The primary objective of the Phase II portion of the study is to determine the objective response rate of envafolimab, YH001 and doxorubicin in patients with leiomyosarcoma and dedifferentiated liposarcoma who have not received immune checkpoint inhibitors or doxorubicin, and to determine the objective response rate of envafolimab and YH001 in patients with alveolar soft parts sarcoma and chondrosarcoma who have not received immune checkpoint inhibitors. The study began enrollment in November 2022 and Phase I data are expected available at the end of 2023.

WE MAY NOT BE ABLE TO ULTIMATELY DEVELOP AND MARKET YH001 SUCCESSFULLY.

Other Products

YH002 – an anti-OX40 mAb, with potential to combine with YH001

YH002 is a recombinant humanized IgG1 antibody that targets the human OX40 receptor (the "**TNFRSF4**"). We are currently conducting a FIH, multicenter, open-label and Phase I dose-escalation study in Australia to evaluate the safety, tolerability and pharmacokinetics and determine the MTD/RP2D of YH002 in subjects with advanced solid malignancies. Preliminary data from the Phase I trial have demonstrated a favorable safety profile of YH002.

We have received the IND approvals from the NMPA and the U.S. FDA for Phase I clinical trials of YH002 as a single agent in China and the U.S..

We are conducting a clinical trial of YH002 in combination with YH001 in patients with advanced solid tumors in China and Australia.

YH002 – Collaboration with Syncromune

In 2022, we entered into a license agreement with Syncromune, a clinical-stage U.S. biopharmaceutical company, to jointly develop and commercialize an intratumoral immunotherapy based on Syncrovax™ technology, a next-generation personalized oncology therapy. Syncromune will acquire an intratumoral immunotherapy consisting of YH002 and other active ingredients. It has subsequently been agreed that YH001 and YH003 are also included in the scope of the collaboration as selected active ingredients. Syncromune will acquire exclusive global development and commercialization rights to Syncrovax™ therapeutics consisting of YH002 and YH001 and YH003. Pursuant to the agreement, we will receive a upfront payment assessed on the clinical value of the antibody molecules, key development and regulatory milestone payments, and royalties based on sales. Syncromune is preparing the submission of IND to FDA in the next 12 months.

WE MAY NOT BE ABLE TO ULTIMATELY DEVELOP AND MARKET YH002 SUCCESSFULLY.

YH008 – an anti-PD-1/CD40 bi-specific antibody

YH008 is an anti-PD-1/CD40 bi-specific antibody for the treatment of solid tumors. YH008 activates CD40 while simultaneously inhibiting PD-1. The results of *in vitro* and *in vivo* experiments show that the activation of the CD40 pathway by YH008 depends on the cross-linking effect of PD-1, avoiding non-specific activation outside the tumor microenvironment.

We received the U.S. FDA approval in December 2022 and NMPA approval in March 2023 for the Phase I clinical trial, which is a first-in-human study of YH008 in subjects with advanced solid malignant tumors, in order to assess the safety and tolerability of YH008, as well as to determine the MTD or the recommended.

YH008 – Collaboration with Chipscreen Biosciences

On February 27, 2023, Eucure Biopharma has reached an exclusive license agreement with Chipscreen NewWay Biosciences ("**Chipscreen NewWay**"), a holding subsidiary of Shenzhen Chipscreen Biosciences Co., Ltd. ("**Chipscreen Biosciences**", a company listed on the Shanghai Stock Exchange, Stock Code: 688321.SH) for the clinical development and commercialization of YH008 bispecific antibody in Greater China (including Mainland China, Hong Kong, Macau and Taiwan). Eucure Biopharma reserves YH008's global rights outside Greater China. Under the agreement, Chipscreen NewWay will pay Eucure Biopharma an upfront payment of RMB40 million, a potential development milestone payment of up to RMB360 million, a potential sales milestone payment of up to RMB196 million, as well as tiered royalties on net sales. For details, please refer to the announcement of the Company dated February 27, 2023.

WE MAY NOT BE ABLE TO ULTIMATELY DEVELOP AND MARKET YH008 SUCCESSFULLY.

YH005 – Collaboration with RemeGen

YH005 is an anti-Claudin 18.2 antibody generated using our Claudin 18.2 knock-out mice. We have out-licensed Claudin 18.2 antibody YH005 to RemeGen to develop a YH005 ADC, which is also known as RC118. On September 6, 2017, we entered into an exclusive Technology Transfer Agreement (the "**RemeGen Agreement**") with RemeGen concerning the development and commercialization of the RC118 which we have transferred the global rights of YH005. The RC118 has obtained approval for Phase I clinical trials in Australia in August 2021, and has obtained approval for Phase I clinical trials in China in September 2021. The clinical studies are currently in smooth progress and ongoing dose creep study demonstrates good safety and tolerability. The RC118 has been granted two orphan drug designations by the U.S. FDA for the treatment of gastric cancer, including gastroesophageal junction cancer, and pancreatic cancer.

RemeGen initially reached out for co-development of YH005 after our successful development of Claudin 18.2 knock-out mice. We entered into collaboration with RemeGen as the tumoral and tissue-specific expression of Claudin 18.2 has great potential for ADC drugs. We believe our collaboration with RemeGen is win-win for both parties and contributes to the value maximization of YH005.

WE MAY NOT BE ABLE TO ULTIMATELY DEVELOP AND MARKET AND YH005 SUCCESSFULLY.

PROJECT INTEGRUM (千鼠萬抗)

Project Integrum (千鼠萬抗) is our proprietary large scale fully human antibody screening program that discovers promising antibody sequences and antibody molecules for internal drug development or external monetization. Project Integrum is our key R&D project.

On the one hand, it may provide co-development, out-licensing, transfer development and other collaboration opportunities with generated antibodies. We have entered into collaborations with many drug discovery companies through upfront fees, milestone fees and royalties for the transfer of a large number of antibody molecules/sequences generated by Project Integrum. At the current stage, most of the annual sales revenue is from upfront fee and a small amount of milestone fee. In the future, as more antibody molecules/sequences are transferred, the growth of milestone fee and royalty revenue will become very significant, which is a very important source of revenue for us in the future. On the other hand, it helps to enhance our product pipelines and complement our developments of our Core Products.

As of December 31, 2022, Project Integrum is progressing well, we have knocked out more than 680 target genes in target KO RenMab, and more than 260 target genes in target KO RenLite. It is expected that by the third quarter of 2023, we will have completed most of the work on Project Integrum, and are expected to obtain a library of 400,000 to 500,000 fully human antibody sequences covering more than 1,000 innovative targets. This antibody library is of high quality and rich in diversity, and can fully and adequately cover all antigenic epitopes of targets, forming a fully human antibody library to meet the different antibody development needs of various partner pharmaceutical companies.

In terms of cooperation, we have reached 34 co-development/out-licensing/transfer development deals with 21 pharmaceutical and biotechnology companies, including but not limited to Merck Healthcare KGaA, ADC Therapeutics, Hansoh Pharma and Nanjing Chia-Tai Tianqing Pharmaceutical Company.

RenMice platforms for generation of a diverse repertoire of fully human antibodies

We have developed RenMice platforms to generate a diverse repertoire of fully human monoclonal antibodies and bi-specific antibodies. Our RenMice platform consist of three different chromosome engineered mice with fully human immunoglobulin variable domains replacing mouse counterparts, namely RenMab, a fully human antibody mouse, RenLite, a fully human common light chain mouse and RenNano, a fully human heavy chain only mouse. Based on RenMab, we have developed a new T Cell Receptor-Mimic (TCRm) technology platform for drug development of antibodies against intracellular targets.

Our RenMice platforms are competitive and validated through external licenses. As of December 31, 2022, we reached license and trial collaboration agreements with 17 well-known multinational pharmaceutical companies and leading pharmaceutical companies such as Merck Healthcare KGaA, Xencor, BeiGene and Innovent, all of which are independent third parties of us. As of December 31, 2022, the licensees have initiated 40 projects in total. The licensing of the RenMice technology platform will allow us to receive upfront fees, milestone fees and royalty. In March 2023, the Company entered into the license agreement with Janssen, one of the Janssen Pharmaceutical Companies of Johnson & Johnson. For details, please refer to the announcement of the Company dated March 8, 2023.

RenMab

Our RenMab platform uses RenMab mice for the discovery and generation of fully human monoclonal antibodies. Our in-house developed RenMab mice are transgenic mice with full human heavy chain variable region and kappa light chain variable region replacement *in situ*. RenMab mice carry the full human immunoglobulin variable region repertoire, which have an intact immune system and are healthy even after gene editing.

This proprietary, megabase-scale gene editing technology enables the efficient replacement of the entire murine immunoglobulin heavy chain and kappa light chain variable domains (including distal Vk) with the corresponding human immunoglobulin variable domains *in situ*. Thus, our RenMab mice are as healthy as regular wild-type mice, and well suited to knock out drug target genes. The knockout mice are an essential building block of our Project Integrum.

With the full human heavy and light chain variable region, RenMab mice are able to produce a diverse repertoire of antibodies. This then allows us to optimize and select antibodies with the best specificity and affinity at subnanomolar ranges in the lead antibody screening process.

RenLite

Our RenLite platform uses RenLite mice to produce diverse bi-specific antibodies with high affinity and to generate bi-specific ADCs. In our RenLite mice, the mouse heavy chain antibody gene variable region is replaced with full human heavy chain variable region *in situ*, which results in diversified heavy chain repertoire similar to that of humans. In contrast, the kappa chain variable domain has been replaced by a single fixed human common kappa light chain. Presence of the single human common kappa chain ensures light chain complementarity to seamlessly resolve the light chain and heavy chain mismatch issues often seen in bi-specific antibody platforms, thereby greatly reducing the difficulty of CMC process development.

In addition to bi-specific antibodies, our RenLite mice are able to generate antibodies for bi-specific ADCs. Our bi-specific ADCs can be used to effectively target two tumor-associated antigens and deliver the payload specifically to tumor cells, overcoming the non-tumor cytotoxicity of traditional ADC drugs. YH012 and YH013 are bispecific antibody ADC molecules generated by Rentile platform, currently at CMC stage.

RenNano

Our RenNano platform uses RenNano mice to produce heavy chain antibodies on the basis of RenMab mice with further modification on antibody heavy chain constant region. Compared to few other nanoantibody models in the world, our RenNano mice carry the complete human antibody heavy chain variable region gene in an *in situ* swap, producing a fully human single chain antibody fragment sequence that can be used for drug development without further *in vitro* humanization, saving significant time and expense, and reducing the risk of subsequent development. Based on the rapid reproductive capacity of mice and the proven technology for preparing mice monoclonal antibody, RenNano mice can be used for high-throughput development of fully human heavy chain antibodies at scale compared to other single chain antibody fragment animals such as alpacas. Immunization of RenNano mice with a variety of different antigens resulted in heavy chain antibodies with diverse complementarity determining region 3 sequences and abundant recognition epitopes. These antibodies bind antigen independent of the light chain and have a high affinity at the nM level. Experiments have shown that antibodies derived from RenNano have good biological functions *in vitro* and *in vivo*. Due to its simple structure and no pairing, it is suitable for modular assembly, and even more so, for the construction of more innovative drug-forming forms such as dual antibodies, multibodies and CAR-T.

TCRm Platform

TCRm platform (the "**TCRm Platform**") is heavily modified based on RenMice to become HLA/RenMab to produce fully human antibodies that accurately recognize intracellular MAP epitopes and produce antibodies against intracellular antigens. HLA/RenMab is designed to break through the limitations of traditional antibody therapy that mainly targets cell membrane surface antigens, such as PD-1 and PD-L1, or soluble antigens, as well as the immune escape of tumor cells caused by the usually low affinity of antibodies that recognize the TCR of tumor antigens for the corresponding antigens. The TCRm Platform focuses on screening antibodies with much higher affinity and specificity than TCR by replacing them with antibodies that can effectively target intracellular antigens. Based on the advantages of HLA/RenMab mice, we can obtain fully human antibodies that recognize MAP epitopes and produce antibodies against intracellular antigens in one step, while ensuring *in vivo* affinity maturation and screening of antibodies with better affinity and specificity than TCR.

The fully human antibody sequences obtained from the TCR-like antibody technology platform provide more candidates for subsequent antibody-related drugs, CAR-T and other fields. It provides additional intracellular targeting options for targeted removal of specific abnormal cells such as tumor cells, infected cells, and senescent cells. In addition, TCR-like blocking antibodies can also be screened for specific cells that are attacked by self-exempt diseases to avoid damage to normal tissues.

PRE-CLINICAL RESEARCH SERVICES

Our pre-clinical research services primarily include CRO services such as pre-clinical pharmacology and efficacy evaluation, R&D and sale of innovative target animal models, and gene editing customization service business. These services line is an important business segment for the Company. The rapid sales revenue growth and higher profit level have continuously generated business cash flow for the Company and buttressed the soundness our financial conditions.

In the business line of pre-clinical CRO services such as pharmacological efficacy evaluation, the Company continuously expands the categories of CRO services. Meanwhile, the Company complements the overseas sales team. A German subsidiary in Europe was established in 2022 and the experimental facility in Boston, U.S. was enlarged, in the hope of better serving overseas pharmaceutical customers and leveraging the proportion of overseas sales. These measures achieved significant sales growth in 2022.

Pre-Clinical Pharmacology and Efficacy Evaluation

Our pharmacology team, which is based in China and the U.S., has built expertise in testing novel therapeutics such as mAbs, CAR-Ts, gene therapy and other therapeutic modalities for immuno-oncology, immune and autoimmune diseases as well as metabolic diseases to support drug discovery and development worldwide. Our services utilize a large collection of genetically humanized mouse models for checkpoint inhibitors an cytokine/cytokine receptors, highly immune-deficient B-NDG mice and their variants, including CDX models and engineered cell line models, among others. Our pharmacology services include *in vivo* efficacy, PK/PD, biomarker assessments, toxicology and safety evaluation, *in vitro* immune cell and cytokine profiling and cell functional assays. Our pre-clinical pharmacology studies have supported a number of IND applications and clinical trials. We have completed more than 2,000 drug evaluation projects for approximately 400 partners globally.

We determine our fee rates for pre-clinical pharmacology and efficacy evaluation services primarily based on types of animal used and types of service provided. Animal fees are set by types of animals utilized, and service fees are determined by allocation of staff resource, duration and materials required for the projects based on the type of services such as oncology PD, immune reconstitution and autoimmune disease. Duration of our agreements with customers on pre-clinical pharmacology and efficacy evaluation services is based on complexity of the project, which typically lasts for no longer than one year. Payment terms are set by project and we are generally entitled to upfront payments and project closing payments by our customers. As we are a service provider for our pre-clinical pharmacology and efficacy evaluation, the intellectual rights relating to the project belong to our customers.

In Vivo Pharmacology Capabilities

Our *in vivo* pharmacology team has successfully developed and validated hundreds of syngeneic and xenogeneic tumor models to meet the scientific objectives of our clients. The animal models include our internally generated humanized mice and humanized cell lines carrying functional human genes that express identified human therapeutic targets or customized targets per clients' interests. Employing the humanized cell lines and the humanized mice results in a tailored therapeutic strategy with a complete biology to evaluate the efficacy of different types of human therapeutic molecules (monoclonal antibodies, bi-specific antibodies, ADCs, vaccines, etc.) against the therapeutic targets of interest. Furthermore, tumor cell implantation through different routes including orthotopic injection delivers favorite translatable data to support clinical studies. All these models cover broad immune-therapeutic areas and greatly increase translation from pre-clinical research to clinical studies for drug development.

Besides the tumor models, *in vivo* pharmacology services have also developed several translatable immune and autoimmune inflammatory disease models and metabolic disease models in both wild-type and humanized mice to extend our research and services to broader therapeutic areas and better support our clients in their research and drug development.

Our model-based *in vivo* efficacy services have high scale screening capabilities to support molecule selection, drug comparison, or drug evaluation by in *vivo* activity assessment. Complementary to our *in vivo* capabilities, our *in vitro* pharmacology services include immune cell profiling, cytokine profiling, primary T, NK, and macrophage cell-based functional assays, among others. Our integrated *in vivo* capabilities and *in vitro* pharmacology capabilities enable us to provide a complete PoC and MoA for drug development.

Pharmacokinetics (PK) & Pharmacodynamics (PD)

Antibody drug pharmacokinetics are deeply influenced by target expression (target-mediated clearance) and FcRn (neonatal Fc receptor) expression, which can extend antibody half-life. Because human antibodies have different affinities to the targets, and FcRn expressed in animal species differ from that expressed in human, the PK profile of human antibodies from animals may not be translatable to human. Our humanized mice could express human therapeutic targets, and FcRn humanized mice enable more translatable evaluation of human antibody PK in mice, which could help to address these issues. Due to the growing limited availability of non-human primates, humanized mice may have increased value in non-clinical PK and toxicity studies for biologic drug development.

Utilizing target humanized mice and FcRn humanized mice, we have established a comprehensive PK/PD service platform in which we perform a series PK/PD studies to characterize drug exposure, predict dosage requirements, understand concentration-effect relationships, establish safety margins and efficacy characteristics, and develop the drug's product profile to support drug development and clinical trials. The PK/PD evaluation is also supported by our *in vitro* capabilities. Also, cell-based assays including ADCC and CDC assist with *ex vivo* or *in vitro* PD evaluation and identification of the MoA.

Small Animal Toxicology and Safety Study

Humanized mice can provide favorite translatable results in the toxicology and safety evaluation of drug candidates and are recommended by the FDA. We have established toxicology and safety evaluation platforms using our humanized mice and highly immune deficient B-NDG mice. Our comprehensive toxicology and safety readouts include blood biochemistry liver and renal function evaluation, histopathology evaluation, CRS evaluation, ADA test and more, which are the common side effect tests for current immunotherapy. We believe our pre-clinical toxicology and safety evaluation provides very predictive data to support drug candidate evaluation and may guide the design of clinical studies.

Gene Editing

Our gene editing technology lays the solid foundation for our antibody discovery and development platforms. Leveraging our advanced gene editing technologies, we have launched Project Integrum, developed three transgenic RenMice platforms and created a comprehensive set of antibody discovery and animal model platform. Gene editing is a technique for making specific modifications to segments of an organism's DNA, which is usually used to achieve modifications such as the addition and deletion of specific DNA segments, deletions and substitutions of specific bases. Gene editing can make permanent changes in the genome of an organism, and these changes can take place throughout the body or in specific tissues. Models such as animals or cell lines obtained by gene editing technology can simulate specific physiological, pathological and cellular characteristics of humans, and thus play an important role in studying the functions of genes, elucidating the genetic evolution of organisms, the molecular mechanisms of disease occurrence and providing relevant evaluation of drugs for disease treatment.

In the area of gene editing customized services, we have shifted the focus to overseas pharmaceutical company customers and emphasized to serve internal R&D and innovations so as to enhance the profit level and value contribution of the gene editing business line.

Our Gene Editing Technology

We have developed powerful gene editing platforms, SUPCE, CRISPR/EGE and ESC/HR, through more than a decade of dedicated research, which serves as our driving force for underlying technological innovations. Since our establishment, we have been providing customized gene editing services based on animals as well as cells to meet the needs of basic science research and drug development of our customers. Leveraging our advanced gene editing technologies, we have completed approximately 4,300 customized gene editing projects for our clients and self-developed approximately 2,800 gene edited animal and gene edited cell model products.

Compared with other common gene editing technologies that can only edit gene fragments less than 30,000 bases at a time using plasmid, our proprietary in-house developed SUPCE technology allows for megabase-scale chromosomal editing, with high stability and reproducibility. Our SUPCE technology is well validated by our RenMice platform, which was successfully developed applying this technology. We achieved full length *in situ* gene replacement for diverse antibodies in RenMice and produced very healthy mice retaining a strong immune system.

Customized Services

We mainly provide customized gene editing services based on rat/mouse and cell lines, and the final products are animal or cell line models with specific genotypes, genotype detection reports and project closure reports. In addition, we also provide a series of gene editing experimental services such as sgRNA plasmid construction and sgRNA activity detection:

- Animal-based Gene Editing Services. We are mainly engaged in customized gene editing services for rat/mouse. Mice are easy to handle, have a short life cycle, high reproductive capacity, and have similar genomic and physiological characteristics to humans, thus are often used as animals of choice for studying human gene function and disease mechanisms. Mice are also the most intensively studied animal for genomics, transcriptomics, proteomics and genetic phenotyping. Rats have a higher similarity to humans in terms of nervous system compared to mice and are often used as pharmacodynamic models in related fields. We provide customized gene editing services for rat/mouse using mature and stable ESC/HR-based and CRISPR/EGE-based gene editing technologies. We perform gene editing modification based on several rat/mouse strains. The mouse strains for which gene editing services are provided mainly include C57BL/6, BALB/c, DBA2 and NOD-scid, and the rat strains mainly include Sprague Dawley and Wistar.

- Cell Line Based Gene Editing Services. Compared with gene editing animal models, cell line models have the advantages of convenience, short cycle time and low cost. Stable cell lines play an important role in gene function research, recombinant protein preparation, drug screening and target validation, tumor therapy and other research. We provide a variety of cell line gene editing services using ESC/HR-based and CRISPR/EGE-based gene editing technologies.

- Gene Editing Experimental Services. We provide customized gene editing services based on rats and mice as well as cell lines along with supporting experimental services.

We have mastered ESC/HR-based gene editing technology and CRISPR/EGE-based gene editing technology based on our years of dedicated research and technical accumulation.

Animal Model Selling

Leveraging our advanced gene editing technologies, we have created a comprehensive set of antibody discovery and disease mouse models by editing the gene of mice, creating animal models suitable for *in vivo* efficacy evaluation. Our antibody discovery and disease mouse models include more than 2,800 unique gene-edited mouse/cell line projects.

The combination of an extensive portfolio of animal models and large-scale animal production and *in vivo* efficacy studies has enabled us to successfully conduct large-scale *in vivo* antibody discovery and screening for our own internal pipeline and initiatives as well as providing disease animal models and *in vivo* pharmacology services to biotechnology and large pharmaceutical company clients worldwide.

In the business line of R&D and sales of innovative animal models, the company keeps launching hundreds of new animal models in the market every year, while expanding the customer base at home and abroad, and leveraging the scale of the animal facility in Nantong, Jiangsu Province, to provide more customers with better animal model products. These initiatives ensure that the Company made satisfactory sales growth in 2022.

Animal Models

Animal models that mimic human pathological environments through the modification of key genes are essential tools in the current drug development process. Drug evaluations using these models are considered the "gold standard" for validating the efficacy of pre-clinical drugs. Based on the gene editing humanized mouse model, we have developed mouse models for tumor and autoimmune diseases, which are used for gene function research and drug development. Using marketed and self-developed antibody drugs for *in vivo* drug efficacy testing in mice, combined with physiological, biochemical, blood, toxicity and other factors, we are able to verify the validity of the models and sell disease model mice to our customers.

Current disease types are mainly focused on tumor and autoimmune. We are actively investigating new animal models and cellular assay models, constructing tumor models using gene-edited humanized mice, testing the inhibitory effects of anti-tumor antibody drugs, chemotherapy drugs and targeted small molecule drugs on tumor growth, and providing more data support for drug screening of tumor drugs and clinical declarations. For autoimmune, we are focusing on inducing autoimmune diseases (asthma, experimental autoimmune encephalomyelitis, psoriasis, etc.) in gene-edited humanized mice and testing the therapeutic effects of cytokine-based antibody drugs.

In addition to tumor and autoimmune diseases, we are further expanding the disease areas of animal models, such as neurological, cardiovascular and metabolic diseases, to provide pre-clinical *in vivo* and *in vitro* drug efficacy testing for drug development.

(i) Humanized Mice

Immune Checkpoint and other Humanized Mice

Most human antibody drugs can only recognize and interact with human antigens, and due to species differences, pre-clinical pharmacodynamic and pharmacokinetic evaluation and testing cannot be performed directly with wild-type mice. Therefore, it is necessary to humanize mouse immune checkpoints as well as other targets such as GPCR and express human-related antigens in mice, so that human antibody drugs can produce normal drug responses in mice.

Relying on an efficient and stable gene technology platform and a scientific and standardized model animal production center, we considered the factors that may interfere with the expression of humanized proteins, carried out detailed evaluation and made a precise design for each subject and developed a series of immune checkpoint and other humanized mice based on the genetic background of C57BL/6. In order to ensure that the mouse model is fully humanized, we excluded the influence of external environment factors on the expression and signaling of humanized proteins, and provided an effective model and powerful tool for drug validation of immune checkpoint and other targets antibodies.

Cytokine and Cytokine Receptor Humanized Mice

The mechanisms of cytokine involvement in autoimmune diseases have been studied in depth. AbbVie has developed adalimumab, which targets TNFα, and has been approved by the FDA for 10 indications, including rheumatoid arthritis and psoriatic arthritis. Other antibodies targeting cytokine also have good market prospects in autoimmune diseases and oncology.

Cytokines usually have complex signaling pathways. By studying the mechanism of action of cytokines, we have humanized the key cytokines or cytokine receptors in mice, allowing the *in vivo* evaluation of the efficacy and pharmacological effects of human cytokine or cytokine receptor antibody drugs in mice. We believe such coverage can meet a substantial majority of the pre-clinical drug evaluation needs of cytokine or cytokine receptor antibody drugs for pharmaceutical companies.

(ii) Severe Immunodeficient (B-NDG) Mice

B-NDG (NOD.CB17-Prkdcscid IL2rgtm1/Bcgen) mice, which we independently developed, are obtained from mice with NOD-scid genetic background by IL2rg gene knockout. B-NDG mice have a severe immunodeficient phenotype, lack mature T-cells, B-cells and NK cells, and are deficient in cytokine signaling, making them ideal drug development vehicles for human hematopoietic stem cells, human peripheral blood mononuclear cells, human tumor cells or tissue transplantation.

The intellectual properties of our animal models for sale generally belong to the Company. As our model animals would generally not be applied directly towards a product candidate of our clients, there were no intellectual properties allocation discussions with our clients of animal models during the Reporting Period. We typically enter into framework agreements with our clients for a term of one to five years and take clients' work orders under such framework agreements. We decide fee rates and payment terms together with our clients considering multiple factors, including the development cost of certain model animals, breeding expenses, and quantity requested. We generally require our clients to make full payment within a month after the invoice date. Generally neither our client nor us have the right of termination unless a force majeure event occurs.

Models for Human Immune System Reconstitution

In order to solve the problems of maintenance and differentiation functions of hematopoietic cells and restricted development of immune cells in severely immunodeficient mice, we have developed a series of second-generation products based on B-NDG mice to meet different research needs. For example, B-NDG B2m KO plus mice can delay the GVHD effect in PBMC reconstitution model, thus achieving a longer dosing window without affecting the half-life of antibody drugs. Additionally, B-NDG hIL15 mice can better promote the immune reconstitution of human NK cells and B-NDG hTHPO mice do not need irradiation to be reconstituted, thus can avoid radiation damage to mice.

MARKETING AND BUSINESS DEVELOPMENT

We procure business through the efforts of our marketing and business development teams and customer referrals. Our marketing and business development team is dedicated to increasing our brand awareness, expanding our global customer base and strengthening our relationships with existing customers to drive more business opportunities.

Income from pre-clinical business related to CRO of the Company continues to maintain rapid growth and a relatively high gross profit level, and we keep long-term business cooperation with nine top ten overseas pharmaceutical companies. The total revenue of overseas business and its proportion of our total revenue continue to increase. We set up a new subsidiary in Heidelberg, Germany in 2022, and are enlarging the scale of the experimental facility in Boston. In addition, we will recruit more business developers with abroad bases to actively explore overseas markets. In the future, we will further complement overseas investment and improve the amount and proportion of our overseas sales revenue.

Based on the RenMice platform, our antibody discovery platforms continue to produce potential antibody molecules and have reached co-development/licensing agreement with domestic and foreign pharmaceutical companies at different stages. Our antibody discovery business has continued to grow at a high rate since 2020, while maintaining a very high gross profit margin. Our customer base has expanded from well-known domestic biotech companies to famous pharmaceutical companies around the world, and the upfront payment, milestone payment and royalties of a single contract keeps improving.

For the year ended December 31, 2022 and up to the date of this announcement, we had not commercialized any of our Core Products on the market. We have not formulated any definitive pricing policy for our Core Products yet. We are accelerating the development of our clinical and preclinical product pipeline by entering into collaborations with a number of domestic and international pharmaceutical companies. In the future, we will continue to pursue this product development strategy and enter into more collaborations with pharmaceutical companies to advance and commercialize our pipeline.

RESEARCH AND DEVELOPMENT

We are committed to providing innovative services to support our customers' groundbreaking and complex new drug R&D projects in China and around the world. Towards this goal, we have constantly invested in improving our technologies and advancing our service capabilities, as well as actively participated in major government-sponsored research projects. Such investments have allowed us to remain at the forefront of the latest technology trend in our industry, develop novel solutions for our customers and maintain our competitive position. We strive to further enhance our technical capability through internal research and development as well as collaboration with our partners and customers.

We are dedicated to enhancing our pipeline by leveraging our leading in-house research and development capabilities, which spans from early drug discovery to clinical development. As of December 31, 2022, our R&D team has discovered and/or developed our current pipeline of 11 drug candidates.

To cultivate a high-quality talent pool and ensure delivery of professional services, we have developed on-site training programs that provide training courses on a variety of cutting-edge scientific and technical topics, as well as also tracking, evaluating and reporting each employee's training progress.

As of December 31, 2022, we had approximately 550 R&D personnel in three service centers for pre-clinical research services. A large number of them cover both drug development and preclinical research services. For details, among our R&D personnel, approximately 100 were responsible for gene editing and animal models selling, approximately 150 were responsible for pre-clinical pharmacology and efficacy evaluation, approximately 230 were responsible for antibody development and approximately 50 were responsible for clinical development.

For the year ended December 31, 2021 and 2022, our R&D expenses were RMB558.5 million and RMB699.2 million, respectively. The R&D expenses on the Core Products was RMB105.0 million for the year ended December 31, 2022, accounting for approximately 15.0% of the R&D expenses during the same period.

Manufacturing

Animal Model Production

We have established animal model production centers, including three animal facilities encompassing a total of approximately 55,000 sq.m. animal facilities. Our large facilities allow us to have a broad set of genetically engineered mice, disease mouse models and aged small animal with a significant cost advantage.

Collaboration with CROs and CDMOs

CROs and CDMOs, as our supplier, conduct and support our research and development and clinical trials of our pipeline products. The pre-clinical CROs mainly provide us with services related to pre-clinical toxicity and safety evaluations, such as animal studies, of our Core Products in accordance with our study design and under our supervision. We collaborate with our CDMO partners for the manufacturing of a portion of our drug candidates, in particular our Core Products, to supply for use in pre-clinical studies and clinical trials. For details, please refer to "Supplier" and "External Business Development" in this announcement.

QUALITY MANAGEMENT

We have a quality management department that devotes resources to the quality management of our products. Based on our novel idea to develop antibody drugs, we have established our own quality control system with reference to the ISO9001, GMP and GLP systems. Our quality control system devotes significant attention to quality control for the designing, research and development, manufacturing, testing and transportation of our products and product candidates. Our management team is actively involved in setting quality policies and managing our internal and external quality performance.

As of December 31, 2022, our quality management department consists of approximately 45 employees. Our quality management team members have rich experience in quality management and successful drug filings to the U.S. FDA and the NMPA.

SUPPLIERS

Suppliers are important business partners of the Group, and the selection and management of suppliers are directly related to the quality of the Group's products. Therefore, relying on an excellent supply chain management to ensure the quality of our suppliers and products is a top priority. In order to effectively standardize and manage our supplier selection process, we have formulated a series of policies to provide a system guarantee for supplier access, selection, approval, monitoring, and evaluation and clarified the responsibilities of internal procurement personnel.

Before selecting a supplier and signing a contract with it, we will conduct due diligence to evaluate the price, quality, reputation, ability, and technology of the potential supplier to deliver products and services, and may request it to send samples, product trial inspection or on-the-spot investigation by personnel will be included in our qualified supplier database after being reviewed by the purchasing department. We also require suppliers to provide corporate certifications, including but not limited to quality and/or environmental management system certifications, to ensure compliance with national and international standards. At the same time, in accordance with the policies related to supplier selection, we regularly conduct assessments and assessments of all suppliers to verify the effectiveness of their quality systems and service performance, and the assessment results serve as the basis for supplier evaluation. For suppliers who cannot meet the basic procurement requirements and whose assessment results are eliminated, all departments must immediately terminate cooperation with them and replace them with suppliers with better performance.

As at December 31, 2022, the Group had approximately 1,000 suppliers, of which more than 900 were from China. For the year ended December 31, 2022, we conducted assessments for major suppliers to examine whether their supply performance meets our requirements for quality, service, and price. Our main suppliers include suppliers of materials, assets, and services.

EXTERNAL BUSINESS DEVELOPMENT

In line with industry practice, we collaborate with CROs and CDMOs to conduct and support our research and development and clinical trials of our pipeline products, in particular our Core Products. Our CRO partners are usually reputable or multinational companies that primarily engage in biopharmaceutical development, biologic assay development, clinical development, clinical trials management, pharmacovigilance and outcomes research. The pre-clinical CROs mainly provide us with services related to pre-clinical toxicity and safety evaluations, such as animal studies, of our Core Products in accordance with our study design and under our supervision. We engage CROs for the clinical trials of our clinical-stage products, in particular our Core Products. CROs generally provide a comprehensive suite of services to assist us in the implementation and management of clinical trials, including trial preparation, source data verification, clinical safety management, data management and report preparation. Our CDMO partners are usually multinational companies that primarily engage in the development and manufacture of drugs. We collaborate with our CDMO partners for the manufacturing of a portion of our drug candidates, in particular our Core Products, to supply for use in pre-clinical studies and clinical trials.

For the year ended December 31, 2022, the expenses for CROs and CDMOs attributable to the research and development of our Core Products were RMB71.4 million. We select CROs and CDMOs based on various factors, such as academic qualifications, industry reputation and compliance with relevant regulatory agencies and cost competitiveness. In addition, we consider their ability to facilitate site selection, timely recruit patients and conduct complex clinical trials efficiently with high quality. We typically enter into a general service agreement with a CRO or CDMO for clinical trial management services under which we execute separate work orders for each clinical development project. We closely supervise these CROs and CDMOs to ensure their performance in a manner that complies with our protocols and applicable laws, which in turn protects the integrity and authenticity of the data from our trials and studies.

INTELLECTUAL PROPERTY

Intellectual property rights are important to our business. We develop and use a number of proprietary methodologies, analytics, systems, technologies, trade secrets, know-how and other intellectual property during the conduct of our business. As of December 31, 2022, we had 263 registered trademarks, 105 registered patents and 4 software copyrights, and filed 300 patent applications in 5 countries or regions. We also have 5 issued patents and 30 filed patent applications in relation to our Core Products.

IMPACT OF THE COVID-19 PANDEMIC

In the middle of 2022, affected by the prevention and control policies in Shanghai, the enrollment of clinical subjects in the our research pipeline was affected and the clinical progress slowed down, resulting in weakening of the competitive advantages of some of the our R&D pipelines in the competitor position among similar products in the market. In view of changes in the commercial value of pipelines, especially for the clinical research progress of YH001 for the treatment of NSCLC and HCC. For example, since March 2022, many hospitals in China have allocated their resources to the prevention and treatment of COVID-19, thus our clinical trials of Core Products in some of the hospital sites were temporarily delayed. We have been closely monitoring the progress of our clinical trials throughout China by maintaining frequent communication with the medical institutions that cooperate with us, and as of December 31, 2022, we had not experienced and did not anticipate that there will be any material adverse effects on our collaboration with third party service providers for our clinical development. Clinical progress has inevitably been affected by the epidemic, which led to changes in the market competition situation faced by pipeline products. Therefore, the Company needs to adjust its research and development strategies according to the market competition situation that each pipeline product faces.

In the fourth quarter of 2022, due to the prevalence of the Omicron variant of COVID-19 in China, attendance rates of our employees in Beijing, Shanghai, and Jiangsu were affected accordingly and severely dropped, and attendance rates of domestic and foreign customers were also influenced, resulting in delays in the delivery of orders for the our CRO business.

Saved as disclosed above, as of the date of this announcement, COVID-19 pandemic had not led to a material and adverse impact on our business, financial conditions and results of operations.

II. Financial Review

OVERVIEW

The following discussion is based on, and should be read in conjunction with, the financial information and the notes included elsewhere in this announcement.

REVENUE

For the year ended December 31, 2022, all our revenue was generated from services related to our pre-clinical research services (which include gene editing, pre-clinical pharmacology and efficacy evaluation and animal models selling) and antibody development business. The following table sets forth a breakdown of our revenue for the periods indicated:

	Year ended December 31, 2022		Year ended December 31, 2021	
Revenue	***RMB'000***	***%***	*RMB'000*	*%*
Gene editing	**61,075**	**11.4**	51,146	14.4
Pre-clinical pharmacology and efficacy evaluation	**176,069**	**33.0**	105,607	29.8
Animal models selling	**169,328**	**31.7**	107,555	30.3
Antibody development	**126,887**	**23.8**	88,606	25.0
Others	**522**	**0.1**	1,641	0.5
Total revenue	**533,881**	**100.0**	354,555	100.0

Revenue increased by 50.6% from approximately RMB354.6 million for the year ended December 31, 2021 to approximately RMB533.9 million for the year ended December 31, 2022. The increase was mainly driven by the increase in revenue from our pre-clinical pharmacology and efficacy evaluation, animal models selling and antibody development.

COST OF SALES

Our cost of sales consists of staff costs, cost of suppliers and overhead costs.

Cost of sales increased by 32.7% from approximately RMB107.1 million for the year ended December 31, 2021 to approximately RMB142.1 million for the year ended December 31, 2022, which was generally in line with the increase in our revenue in the Reporting Period .

GROSS PROFIT AND GROSS PROFIT MARGIN

The gross profit, representing revenue less cost of sales, increased by 58.4% from approximately RMB247.4 million for the year ended December 31, 2021 to approximately RMB391.8 million for the year ended December 31, 2022. The increase in the gross profit was mainly attributable to the increase in revenue from our pre-clinical pharmacology and efficacy evaluation, animal models selling and antibody development. Gross profit margin is calculated as gross profit divided by revenue. The gross profit margin increased from 69.8% for the year ended December 31, 2021 to 73.4% for the year ended December 31, 2022. The slightly increase was primarily attributable to the growth of our antibody development business which is of a comparatively high gross profit margin.

OTHER GAINS AND LOSSES, NET

For the year ended December 31, 2022, the total other gains and losses, net were approximately RMB86.7 million, representing an increase of 238.7% as compared with approximately RMB25.6 million in the corresponding period last year.

Other gains and losses, net, consist of net (loss)/gain on disposal of property, plant and equipment, change in fair value of financial assets at FVTPL, interest income, government grants (including amortization of deferred income), gain on disposal of financial assets at FVTPL, net realised losses on derivative financial instruments, net foreign exchange gain and others. The increase in total other gains and losses, net was mainly due to our gain from disposal of interest in an associate, change in fair value of financial assets at FVTPL and net foreign exchange gain.

NET CHANGE IN FAIR VALUE OF BIOLOGICAL ASSETS

Our biological assets mainly represent mice for breeding and selling. For mice that remained as the Company's biological assets at the end of the Reporting Period, the Company recognized the change in the fair value of these biological assets, less costs of disposal at the period-end. The net change in fair value of biological assets is recognized as profit or loss. Net change in fair value of biological assets represents the difference in fair value from the beginning to the end of the period and does not generate actual cash inflow or outflow. The fair values of biological assets are determined using the market approach and cost approach. Recent unit trading price and adjustment factors, which are based on the characteristics of the biological assets, were used in the calculations of fair values. A significant increase or decrease in the quantity in stock as well as the estimated unit market price would result in a significant increase or decrease in the fair value of the biological assets.

Our net change in fair value of biological assets decreased by 60.2% from approximately RMB9.8 million for the year ended December 31, 2021 to approximately RMB3.9 million for the year ended December 31, 2022, primarily due to the lower increase in the number of humanized mice in stock during 2022 as compared to 2021. The stock level of humanized mice increased approximately 1,000 heads in 2022, while we recorded a increase of approximately 7,600 heads in the number of humanized mice in stock during 2021. The unit price of different product lines did not fluctuate materially during the corresponding period hence it did not have material impact on the net change in fair value of biological assets.

SELLING AND MARKETING EXPENSES

For the year ended December 31, 2022, our selling and marketing expenses were approximately RMB50.2 million, representing an increase of 19.5% as compared with approximately RMB42.0 million for the year ended December 31, 2021. The increase was mainly due to increased salaries which was generally in line with the increase in our revenue in the Reporting Period.

GENERAL AND ADMINISTRATIVE EXPENSES

Our general and administrative expenses increased by 40.0% from approximately RMB188.1 million for the year ended December 31, 2021 to approximately RMB263.4 million for the year ended December 31, 2022, primarily due to increased staff costs as a result of increased salaries and listing expenses charged to our consolidated statements of profit or loss.

RESEARCH AND DEVELOPMENT EXPENSES

Our research and development expenses increased by 25.2% from approximately RMB558.5 million for the year ended December 31, 2021 to approximately RMB699.2 million for the year ended December 31, 2022, because of (i) our increased staff costs as a result of our increasing number of research and development employees and increased salaries; (ii) our increased direct material costs; and (iii) our increased depreciation and amortization expenses.

The following table sets forth a breakdown of our research and development expenses:

R&D expenses

	Year ended 31 December 2022		Year ended 31 December 2021	
	RMB'000	***%***	*RMB'000*	*%*
Staff costs (excluding share-based payment)	**223,155**	**31.9%**	172,680	30.9%
Commission and technology service fee	**140,203**	**20.1%**	126,296	22.6%
Direct material costs	**161,166**	**23.1%**	111,404	19.9%
Share-based payment	**9,751**	**1.4%**	15,453	2.8%
Testing and laboratory processing fee	**25,308**	**3.6%**	21,230	3.8%
Depreciation and amortization expenses	**92,230**	**13.2%**	65,691	11.8%
Others	**47,354**	**6.7%**	45,731	8.2%
	699,167	**100.0%**	558,485	100.0%

LIQUIDITY AND CAPITAL RESOURCES

The Group monitored and maintained a level of cash and cash equivalents deemed adequate to finance our operations and mitigate the effects of fluctuations in cash flows. During the Reporting Period, we relied on equity financing as the major sources of liquidity. We also generated cash from our revenue from our service offerings, including gene editing, pre-clinical pharmacology and efficacy evaluation services, animal models selling and antibody development.

As at December 31, 2022, our cash at bank and on hand totaling approximately RMB626.6 million, as compared to approximately RMB466.4 million as at December 31, 2021. The increase was mainly as a result of net proceeds received from the Global Offering.

The following table sets forth a condensed summary of the Group's annual consolidated statement of cash flows for the periods indicated and analysis of balances of cash and cash equivalents for the periods indicated:

	Year ended December 31, 2022 ***RMB'000***	Year ended December 31, 2021 *RMB'000*
Net cash used in operating activities	**(303,266)**	(365,778)
Net cash used in investing activities	**(153,738)**	(84,131)
Net cash generated from financing activities	**587,200**	219,440
Net decrease in cash and cash equivalents	**130,196**	(230,469)
Effects of foreign exchange rate changes	**14,241**	(380)
Cash and cash equivalents at January 1	**466,445**	697,294
Cash and cash equivalents at the end of the year	**610,882**	466,445

FINANCE COSTS

For the year ended December 31, 2022, finance costs were approximately RMB56.1 million, representing an increase by 42.4% from approximately RMB39.4 million for the year ended December 31, 2021, primarily due to the increase in interest on lease liabilities.

INCOME TAX

Our income tax was approximately RMB0.8 million for the year ended December 31, 2022, and nil for the year ended December 31, 2021.

LOSS FOR THE YEAR

As a result of the foregoing, we incurred losses of approximately RMB602.2 million and approximately RMB545.6 million for the year ended December 31, 2022 and the year ended December 31, 2021, respectively.

BANK AND OTHER LOANS AND GEARING RATIO

As at December 31, 2022, the Group's outstanding loans were approximately RMB178.8 million (December 31, 2021: nil). Short-term bank loans included loans from the Bank of Nanjing, the Bank of Shanghai and the Bank of Communications, with a term of one year and an annual interest rate of 3.65% to 4.8%.Others loans were from Beijing Daxing Development Finance Leasing Co., Ltd. under the sale and leaseback agreements which was considered as a mortgage loan in substance, and the loans will be paid in the next five years with an effective annual interest rate of 6.0%.

The Group monitored its capital sufficiency using gearing ratio. As at December 31, 2022, the Group's gearing ratio (total debt (including bank and other loans and lease liabilities) as a percentage of total equity as of the end of the Reporting Period) was 1.43 (December 31, 2021: 0.84).

NET CURRENT ASSETS

The Group's net current assets, as at December 31, 2022 were approximately RMB313.3 million, while net current assets of approximately RMB427.7 million as at December 31, 2021.

FOREIGN EXCHANGE RISK

Foreign currency risk is the risk of loss resulting from changes in foreign currency exchange rates. Fluctuations in exchange rates between USD and other currencies in which the Group conducts business may affect the Group's financial condition and results of operations.

In response to the foreign exchange risk, the Company seeks to limit its exposure to foreign currency risk by minimizing its net foreign currency position to reduce the impact of the foreign exchange risk on the Company. During the Reporting Period, the Group entered into a contract related to hybrid foreign currency derivative which contains a foreign currency forward component and some options component, with a commercial bank. The contract has been fully settled at the year end. The management of the Company will continue to monitor closely its foreign currency exposure and requirements and to arrange hedging facilities when necessary.

CAPITAL EXPENDITURE

For the year ended December 31, 2022, our total capital expenditure amounted to approximately RMB410.6 million, primarily including investment in facility and office building, and purchase of scientific equipment.

CONTINGENT LIABILITIES

As of December 31, 2022, the Group did not have any significant contingent liabilities.

CHARGE ON ASSETS

In July 2022, the Group signed sale and leaseback agreements with Beijing Daxing Development Finance Leasing Co., Ltd. (hereinafter referred to as "**Daxing Development**") to sell and lease back certain machinery and equipment amounting to RMB60,305,873 to Daxing Development. The rent will be paid in installments within the next five years. It is considered as a mortgage loan in substance with an annual effective interest rate of 6.0%.

SIGNIFICANT INVESTMENTS

As of December 31, 2022, we did not hold any significant investments.

MATERIAL ACQUISITIONS AND DISPOSALS

Doma Biopharmaceutical (Suzhou) Co., Ltd ("**Doma**") was incorporated as a wholly owned subsidiary in September 2021 with an initial paid-up capital of RMB10 million. In May and December 2022, the Company and several investors reached joint investment agreements respectively. Several investors increased the capital of Doma by a total of RMB940 million and the Company subscribed RMB200 million as well, resulting in the dilution of the Company's equity in Doma from 100% to 18.26%.

Save as disclosed above, for the year ended December 31, 2022, we did not conduct any other material acquisitions or disposals.

EMPLOYEES AND REMUNERATION POLICIES

As of December 31, 2022, we had 1,348 employees in total, including 921 employees in Beijing, 354 employees in Jiangsu Province, and 73 employees in other regions of China and overseas.

In compliance with the relevant PRC labor laws, we enter into standard confidentiality and employment agreements with our employees covering matters such as terms, wages, bonuses, employee benefits, workplace safety, confidentiality obligations and grounds for termination.

To remain competitive in the labor market, we provided various incentives and benefits to our employees. We invest in continuing education and training programs, including internal and external training, for our management staff and other employees to upgrade their skills and knowledge. We also provide competitive salaries and stock incentive plans to our employees especially key employees. We believe our benefits, working environment and development opportunities for our employees have contributed to good employee relations and employee retention.

FUTURE PLANS FOR MATERIAL INVESTMENTS AND CAPITAL ASSET

Save as disclosed in this announcement, we had not authorized any plan for the material investments or acquisition of capital asset as of the date of this announcement.

EVENT AFTER THE REPORTING PERIOD

The Company held a Board meeting on March 6, 2023 to propose issue of A Shares and listing on the Sci-Tech Board of the Shanghai Stock Exchange. The issue of A Shares will be subject to the approval by the Shareholders by way of special resolutions at the extraordinary general meeting and the class meetings, as well as the approvals by the China Securities Regulatory Commission and the Shanghai Stock Exchange. For details, please refer to the announcements dated March 6, 2023 and March 15, 2023.

Save as disclosed above, the Company is not aware of any material subsequent events after December 31, 2022 and up to the date of this announcement.

III. FUTURE AND PROSPECTS

The Company is relying on the innovation of the underlying technology platform to drive drug development. On the one hand, we continue to increase investment in the innovation of the underlying technology platform to ensure that we can be at the forefront of innovative drug R&D, so as to achieve continuous and in-depth cooperation with top drugs at home and abroad. By continuously transferring or authorizing the developed potential antibody molecules/sequences, we can ensure more sustainable long-term benefits. On the other hand, through flexible and diverse clinical co-development/transfer development, the Company has reached clinical development cooperation with many pharmaceutical companies to accelerate the clinical advancement of the drug R&D pipeline. Furthermore, we will continue to increase resource investment in pre-clinical R&D products and service lines to ensure continued expansion of business scale and steady growth in sales revenue. We aim to achieve our goal and mission through the following strategies:

- We will continue to make efforts to establish partnerships with leading pharmaceutical companies in China and globally. Accelerating the completion of the R&D of Project Integrum, through the establishment of 400,000-500,000 fully human antibody sequence libraries covering more than 1,000 innovative targets, and achieving antibody molecules/ sequences transfer/authorization cooperation with more domestic and abroad pharmaceutical companies, to deepen cooperation by obtaining upfront fee, milestone fee and royalty cooperation. With the transfer of more antibody molecules/sequences in the future, we will gain huge commercial returns.

- We will continue to increase investment to ensure that the pre-clinical R&D product and service business line continues to maintain a high profit level with rapid growth. On the one hand, leveraging our leading gene editing platform, we plan to develop new disease mouse models with various tumors, autoimmune diseases, cardiovascular and cerebrovascular diseases, metabolic diseases, and neurological diseases to provide differentiated *in vivo* pharmacological and pharmacodynamics services to meet the needs of our customers. On the other hand, we will continue to explore the overseas drug R&D service market, and promote the rapid growth of the Company's overseas sales revenue.

- Leveraging our strong clinical development team and abundant clinical resources, we plan to promote our product pipeline globally to accelerate the commercialization of our drugs. In the future, our overall R&D strategy will be to lead the early clinical development of drug molecules, and then reach co-development/transfer development with many drug R&D companies, and accelerate the Phase II/III clinical R&D of each antibody drug molecule and commercialization with the major partners. We will not invest its own resources in the short term to lead Phase III clinical trials and drug commercialization. We endeavor to reach cooperation arrangements with more partners to improve the speed of drug discovery and development.

- We believe technology is key to our platform and services, and plan to advance our overall technology levels. We plan to apply them to TCR based therapy, research on the mechanism of immune response and more. For our NK cells humanized mouse models, we also plan to make them applied to NK cells receptor antibody drug screening, and to achieve facilitated multiple antibodies drug development due to the inclusion of multiple immune checkpoints in the NK cells gene cluster, which can greatly simplify the process of antibody drug

development. The development of bi-specific antibodies and bi-specific-antibody drug conjugates (ADC drugs) would be one of the important segments of our business in the future, which we believe present significant efficacy and safety advantages. We plan to achieve their development by leveraging our RenLite fully humanized antibody mouse platform.

CORPORATE GOVERNANCE AND OTHER INFORMATION

Compliance with the CG Code

The Company is committed to achieving high standards of corporate governance with a view to safeguarding the interests of the Shareholders and to enhance corporate value and accountability.

The Company has adopted the principles and code provisions as set out in the CG Code to the Listing Rules. As the Company's Shares were listed on the Stock Exchange on September 1, 2022, the CG Code was not applicable to the Company before the Listing Date.

The Board is of the view that the Company has complied with all applicable code provisions of the CG Code during the period from the Listing Date to December 31, 2022 and up to the date of this announcement, except for a deviation from the code provision C.2.1 of the CG Code, the roles of the chairman of the Board and the chief executive officer of the Company are not separate and are both performed by Dr. Shen. In view of Dr. Shen's experience, personal profile and his roles in our Company, Dr. Shen is the Director best suited to identify strategic opportunities and focus of the Board due to his extensive understanding of the Company's business as the chief executive officer. The Board believes that vesting the roles of both the chairman and the chief executive officer in the same person has the benefit of ensuring consistent leadership within the Group and enables more effective and efficient overall strategic planning for the Group. 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 continue to review the effectiveness of the corporate governance structure of the Group in order to access whether the separation of the roles of the chairman and the chief executive officer is necessary.

The Company will continue to review and enhance its corporate governance practice to ensure compliance with the CG Code.

Compliance with the Model Code

The Company has adopted a code of conduct regarding Directors' and Supervisors' securities transactions on terms no less exacting than the required standard set out in the Model Code in Appendix 10 to the Listing Rules.

As the Company's Shares were listed on the Stock Exchange on September 1, 2022, the Model Code and Company's code of conduct were not applicable to the Company before the Listing Date.

Specific enquiries have been made to all Directors and Supervisors, and they have confirmed that they have complied with our Company's code of conduct regarding Directors' and Supervisors' securities transactions during the period from the Listing Date to December 31, 2022 and up to the date of this announcement.

Purchase, Sale or Redemption of Listed Securities of the Company

During the Year, pursuant to the terms of the rules and deed of settlement of the share award scheme of the Company adopted on October 17, 2022 (the "Share Award Scheme"), the trustee of the Share Award Scheme purchased on the Stock Exchange a total of 828,500 shares at an aggregate consideration (including related transaction costs) of approximately RMB18.99 million. Save as disclosed above, the Company and its subsidiaries had not purchased, sold or redeemed any of the Company's listed securities during the Year.

H Share Full Circulation

The Company applied for a "full circulation" and has received the reply from the CSRC dated July 11, 2022, in relation to a total of 86,313,420 Unlisted Shares (with a nominal value of RMB1.00 each) held by certain Shareholders of the Company being approved by the CSRC to be converted into H Shares, and the relevant Shares may be listed on the Hong Kong Stock Exchange upon completion of the conversion. This reply shall remain effective within 12 months from the date of approval.

Use of Proceeds

The net proceeds received by the Company from the Global Offering (including the partial exercise of the Over-allotment Option) amounted to approximately HK$537.0 million (equivalent to approximately RMB436.3 million) after the deduction of underwriting fees, and related expenses in connection with the exercise of the Global Offering.

As of December 31, 2022, the Group had used the net proceeds from the Global Offering for the following purposes:

	Approximately % of total net proceeds *(%)*	Net proceeds from Global Offering *HK$' million*	Utilized net proceeds up to December 31, 2022 *HK$' million*	Proceeds unused as of December 31, 2022 *HK$' million*
(A) Fund further clinical research and development of our Core Products	**70**	**376.0**	**12.0**	**363.9**
(i) Fund the research and development of YH003	35	188.0	4.0	184.0
(ii) Fund the clinical research and development of YH001	35	188.0	8.1	179.9
(B) Fund antibody drug discovery and development in connection with Project Integrum	**15**	**80.6**	**35.3**	**45.3**
(i) Investment in the facilities construction and purchase of equipment used for antibody drug discovery under Project Integrum	5	26.9	0.3	26.6
(ii) Cover staff costs in Project Integrum	5	26.9	21.3	5.6
(iii) Trial consumables and other costs in antibody discovery and development for Project Integrum	5	26.9	13.8	13.1

		Approximately % of total net proceeds *(%)*	Net proceeds from Global Offering *HK$' million*	Utilized net proceeds up to December 31, 2022 *HK$' million*	Proceeds unused as of December 31, 2022 *HK$' million*
(C)	**Pre-clinical and clinical development of other pipeline products**	**10**	**53.7**	**9.8**	**43.9**
(i)	Fund upcoming clinical trials of YH002	3	16.1	–	16.1
(ii)	Fund clinical trials of YH004	2	10.7	0.6	10.1
(iii)	Fund pre-clinical trials of several drug candidates	5	26.9	9.2	17.7
(D)	**Working capital and other general corporate purposes**	**5**	**26.9**	**7.5**	**19.4**
Total		**100**	**537.0**	**64.7**	**472.3**

* *The amounts have been rounded to the nearest million.*

The Company intends to use proceeds that had not been utilized as of December 31, 2022 in the same manners and proportions as stated under the section headed "Future Plans and Use of Proceeds" in the Prospectus. It is expected that all remaining unutilized net proceeds will be fully utilized by December 31, 2026. The expected timing of the utilization of the remaining proceeds is based on the Group's view that such timing will vary depending on current and future developments in market conditions.

Audit Committee

The Audit Committee has four members comprising one non-executive Director and three independent non-executive Directors, being Ms. Liang Xiaoyan (chairman), Mr. Hua Fengmao, Dr. Yu Changyuan and Mr. Wei Yiliang.

The Audit Committee has considered and reviewed the accounting principles and practices adopted by the Group and has discussed matters in relation to internal controls, risk management and financial reporting with the management of the Company. The Audit Committee has reviewed and considers that the annual financial results for the year ended December 31, 2022 are in compliance with the relevant accounting standards, rules and regulations, and appropriate disclosures have been duly made.

Scope of Work of the Auditor

The financial figures in respect of the Group's consolidated statement of financial position, consolidated statement of profit or loss, consolidated statement of profit or loss and other comprehensive income and the related notes thereto for the year ended December 31, 2022 as set out herein have been agreed by the Group's auditor, KPMG, Certified Public Accountants, to the amounts set out in the Group's audited consolidated financial statements for the year. The work performed by KPMG in this respect did not constitute an assurance engagement and consequently no assurance conclusion has been expressed by the auditor on this announcement.

FINAL DIVIDEND

The Board had resolved not to recommend the payment of a final dividend for the year ended December 31, 2022 (2021: Nil).

CLOSURE OF REGISTER OF MEMBERS

The register of members of the Company will be closed from Wednesday, June 14, 2023 to Monday, June 19, 2023, both days inclusive, in order to determine the eligibility of the Shareholders to attend and vote at the AGM to be held on Monday, June 19, 2023. In order to be eligible to attend and vote at the AGM, all transfer accompanied by the relevant share certificates and transfer forms must be lodged with the Company's H share registrar in Hong Kong, Tricor Investor Services Limited, at 17/F, Far East Finance Centre, 16 Harcourt Road, Hong Kong (for H Shareholders), or to the Company's registered office at 12 Baoshen South Street, Daxing Bio-Medicine Industry Park, Daxing District, Beijing, PRC (for the Unlisted Shareholders), for registration before 4:30 p.m. on Tuesday, June 13, 2023.

PUBLICATION OF ANNUAL RESULTS AND ANNUAL REPORT

This announcement is published on the websites of the Stock Exchange (www.hkexnews.hk) and the Company (https://www.biocytogen.com.cn/).

The annual report for the year ended December 31, 2022 of the Company containing all the information required by the Listing Rules will be despatched to the Shareholders and published on the websites of the Stock Exchange and the Company in due course.

DEFINITION

In this announcement, unless the context otherwise requires, the following expressions shall have the following meanings.

"ADA"	anti-drug antibody
"ADC"	antibody-drug-conjugates, a new class of highly potent biological drugs built by attaching a small molecule anticancer drug or another therapeutic agent to an antibody, with either a permanent or a labile linker
"ADCC"	antibody-dependent cell-mediated cytotoxicity, a mechanism of cell-mediated immune defense whereby an effector cell of the immune system actively lyses a target cell, whose membrane-surface antigens have been bound by specific antibodies
"AGM"	annual general meeting of the Company to be held on June 19, 2023

"animal model"	a non-human species used in medical research to mimic aspects of a disease found in humans, so as to obtain information about a disease and its prevention, diagnosis, and treatment
"A Share(s)"	the ordinary Share(s) with a nominal value of RMB1.00 each in the share capital of the Company proposed to be allotted, issued and listed on the Sci-Tech Board
"Audit Committee"	the audit committee of the Board
"B-cell" or "B cell"	a type of white blood cell that differs from other types of lymphocytes by expressing B cell receptors on its surface, and responsible for producing antibodies
"B-NDG"	a single knockout mouse with an ultra-immunodeficient phenotype, generated by Biocytogen by deleting the IL2rg gene from NOD-scid mice
"Board" or "Board of Directors"	the board of directors of the Company
"CAR-T" or "CAR T"	chimeric antigen receptor T-cell, T cells that have been genetically engineered to produce an artificial T-cell receptor for use in immunotherapy
"CD40"	Cluster of Differentiation 40, a costimulatory protein found on antigen-presenting cells, essential in mediating immune and inflammatory responses
"CDC"	Complement-dependent cytotoxicity, an effector function of IgG and IgM antibodies
"CDMO(s)"	contract development manufacturing organization(s), a company that serves other companies in the pharmaceutical industry on a contract basis to provide comprehensive services from drug development through drug manufacturing
"CDX"	cell derived xenograft
"CG Code"	the Corporate Governance Code set out in Appendix 14 to the Listing Rules
"China" or "the PRC"	the People's Republic of China, but for the purpose of this announcement and for geographical reference only and except where the context requires, excluding Hong Kong, Macau Special Administrative Region and Taiwan
"CMC"	Chemistry, Manufacturing, and Controls

"Company", "our Company", "the Company"or "Biocytogen"	Biocytogen Pharmaceuticals (Beijing) Co., Ltd.* (百奧賽圖(北京)醫藥科技股份有限公司), a limited liability company incorporated in the PRC on November 13, 2009 and converted into a joint stock limited liability company incorporated in the PRC on December 29, 2020 whose predecessor was Beijing Biocytogen Gene Biotechnology Co., Ltd.* (北京百奧賽圖基因生物技術有限公司)
"Concerted Parties"	refers to members of the single largest group of Shareholders immediately prior to the completion of the Global Offering, namely, the Controlling Parties and the Employee Incentive Platforms, each a "Concert Party"
"Core Products"	YH001 and YH003, the designated "core products" as defined under Chapter 18A of the Listing Rules
"CR"	complete response
"CRISPR/Cas9"	a gene-editing technology which edits genes by precisely cutting DNA and letting natural DNA repair processes to take over
"CRO(s)"	contract research organization(s), a company which provides support to the pharmaceutical, biotechnology, and medical device industries in the form of research and development services outsourced on a contract basis
"CRS"	cytokine release syndrome
"CSRC"	the China Securities Regulatory Commission (中國證券監督管理委員會)
"CTLA-4"	a protein receptor expressed constitutively on T cells that functions as an immune checkpoint and downregulates immune responses
"C57BL/6"	a common inbred strain of laboratory mouse
"Director(s)"	the director(s) of the Company
"DLT"	dose-limiting toxicity
"DNA"	deoxyribonucleic acid, a molecule that codes genetic information for the transmission of inherited traits
"Domestic Share(s)"	ordinary share(s) issued by our Company, with a nominal value of RMB1.0 each, which are subscribed for or credited as paid in Renminbi
"ELISA"	enzyme-linked immunosorbent assay, a plate-based assay technique for detecting and quantifying soluble substances such as peptides, proteins, antibodies, and hormones
"FDA"	Food and Drug Administration

"FIH"	first-in-human
"FVTPL"	fair value through profit or loss
"GCP"	Good Clinical Practice
"Global Offering"	the global offering of the Company's H Shares on the Stock Exchange
"GMP"	Good Manufacture Practices
"Group," "our Group," "we" or "us"	our Company and our subsidiaries
"GVHD"	Graft versus Host Disease, a condition that might occur after an allogeneic transplant
"HCC"	hepatocellular carcinoma
"HK$" or "HKD"	Hong Kong dollars, the lawful currency of Hong Kong
"Hong Kong" or "HK"	the Hong Kong Special Administrative Region of the PRC
"H Share(s)"	overseas listed foreign share(s) in the share capital of our Company with a nominal value of RMB1.0 each, which is/are subscribed for and traded in HK dollars and listed on the Hong Kong Stock Exchange
"IgG"	Immunoglobulin G, the most common type of antibody found in blood circulation, created and released by plasma B cells
"IgG1"	Immunoglobulin G1, the most abundant IgG subclass in human sera and is important for mediating antibody responses against viral pathogens
"IgG2"	Immunoglobulin G2, predominantly responsible for anticarbohydrate IgG responses against bacterial capsular polysaccharides
"*in situ*"	in the normal location (site of origin) and has not invaded neighboring tissue or gone elsewhere in the body
"*in vitro*"	a category of study conditions which are performed with microorganisms, cells, or biological molecules outside their normal biological context
"*in vivo*"	a category of study conditions in which the effects of various biological entities are tested on whole, living organisms or cells, usually animals, including humans, and plants, as opposed to a tissue extract or dead organism
"IND"	investigational new drug or investigational new drug application, also known as clinical trial application in China

"independent third party(ies)"	any entity(ies) or person(s) who is not a connected person of our Company within the meaning of the Hong Kong Listing Rules
"KOL(s)"	Key Opinion Leader(s)
"Listing"	listing of the H Shares on the Main Board of the Hong Kong Stock Exchange
"Listing Date"	September 1, 2022, being the date on which our H Shares are listed and from which dealings therein are permitted to take place on the Hong Kong Stock Exchange
"Listing Rules" or "Hong Kong Listing Rules"	the Rules Governing the Listing of Securities on the Hong Kong Stock Exchange, as amended, supplemented or otherwise modified from time to time
"mAb"or "monoclonal antibody"	antibodies that are made by identical immune cells which are all clones belonging to a unique parent cell
"Main Board"	the stock exchange (excluding the option market) operated by the Hong Kong Stock Exchange which is independent from and operated in parallel with GEM of the Hong Kong Stock Exchange
"MAP"	MHC-antigen-pep-tide
"MoA"	Mechanism of Action, the specific biochemical interaction through which a drug substance produces its pharmacological effect
"Model Code"	the Model Code for Securities Transactions by Directors of Listed Issuers set out in Appendix 10 to the Listing Rules
"MRCT(s)"	multi-regional clinical trial(s)
"MTD"	maximum tolerated dose, the highest dose of a drug or treatment that does not cause unacceptable side effects
"NK"	natural killer cell, the human body's first line of defense due to their innate ability to rapidly seek and destroy abnormal cells
"NMPA"	National Medical Products Administration
"NRDL"	National Reimbursement Drug List
"NSCLC"	non-small-cell lung carcinoma
"Over-allotment Option"	the over-allotment option granted by the Company to the international underwriters in connection with the Global Offering
"OX40"	a receptor expressed on activated T cells which gives costimulatory signals to promote T cell division and survival

"PBMC"	Peripheral Blood Mononuclear Cell, any peripheral blood cell having a round nucleus
"PD" or "pharmacodynamics"	the branch of pharmacology concerned with the effects of drugs and the mechanism of their action
"PD-1"	programmed cell death protein 1 or programmed death receptor 1, an immune checkpoint receptor expressed on T cells, B cells and macrophages. The normal function of PD-1 is to turn off the T cell mediated immune response as part of the process that stops a healthy immune system from attacking other pathogenic cells in the body. When PD-1 on the surface of a T cell attaches to certain proteins on the surface of a normal cell or a cancer cell, the T cell turns off its ability to kill the cell
"PD-L1"	PD-1 ligand 1, which is a protein on the surface of a normal cell or a cancer cell that attaches to PD-1 on the surface of the T cell that causes the T cell to turn off its ability to kill the cancer cell
"PDAC"	pancreatic ductal adenocarcinoma
"Phase I clinical trial"	a study in which the researchers test an experimental drug or treatment in a small group of people for the first time. The researchers evaluate the treatment's safety, determine a safe dosage range, and identify side effects
"Phase II clinical trial"	a study in which the experimental drug or treatment is given to a larger group of people to see if it is effective and to further evaluate its safety
"PIs"	principal investigators
"PR"	partial response
"Project Integrum"	Project Integrum (千鼠萬抗) launched in March 2020, a large-scale *in vivo* antibody discovery program
"Prospectus"	the prospectus published by the Company on August 19, 2022 in relation to the Global Offering
"R&D"	research and development
"RC118"	YH005 ADC
"RemeGen"	RemeGen Co., Ltd. (榮昌生物製藥(煙台)股份有限公司), a listed company in the Stock Exchange (stock code: 9995) and the Shanghai Stock Exchange (stock code: 688331), a commercial-stage biopharmaceutical company committed to the discovery, development and commercialization of innovative and differentiated biologics for the treatment of autoimmune, oncology and ophthalmic diseases with unmet medical needs in China and globally

"RenLite"	a platform of the Company, using RenLite mice to produce diverse bi-specific antibodies with high affinity and to generate bi-specific ADCs
"RenMab"	a platform of the Company, using transgenic RenMab mice with full human variable region, which allows for the natural *in vivo* pairing of human heavy and light chains for the development of fully human antibodies with high affinity, low immunogenicity, and favorable developability
"RenNano"	a platform uses RenNano mice to produce heavy chain antibodies on the basis of RenMab mice with further modification on antibody heavy chain constant region
"Reporting Period"	the one-year period from January 1, 2022 to December 31, 2022
"RMB" or "Renminbi"	Renminbi Yuan, the lawful currency of China
"RNA"	Ribonucleic Acid, a polymeric molecule essential in coding, decoding, regulation and expression of genes
"RP2D"	recommended Phase II dose
"RSV"	respiratory syncytial virus
"Sci-Tech Board" or "SSE STAR MARKET"	the Sci-Tech Innovation Board of the Shanghai Stock Exchange
"SD"	stable disease
"sgRNA"	Single Guide RNA, artificially programmed combination of two RNA molecules
"Share(s)"	ordinary share(s) in the capital of our Company with a nominal value of RMB1.0 each, comprising our Unlisted Shares and H Shares
"Shareholder(s)"	holder(s) of the Share(s)
"SIRPa"	Signal Regulatory Protein α, a regulatory membrane glycoprotein from SIRP family expressed mainly by myeloid cells and also by stem cells or neurons
"Stock Exchange" or "Hong Kong Stock Exchange"	The Stock Exchange of Hong Kong Limited
"SUPCE"	Size-unlimited and Precise Chromosome Engineering System, a genetic manipulation technique
"Supervisor(s)"	member(s) of the supervisory committee of the Company

"T-cell" or "T cell"	a lymphocyte of a type produced or processed by the thymus gland and actively participating in the immune response, which plays a central role in cell-mediated immunity. T-cells can be distinguished from other lymphocytes, such as B cells and NK cells, by the presence of a T-cell receptor on the cell surface
"TCR"	T-cell receptor, a protein complex found on the surface of T cells that is responsible for recognizing fragments of antigen as peptides bound to major histocompatibility complex molecules
"TEAE"	treatment emergent adverse event
"TGA"	The Therapeutic Goods Administration, the medicine and therapeutic regulatory agency of the Australian Government
"TNFR"	Tumor Necrosis Factor Receptor, membrane proteins that act as communication pathways that activate cell death pathways or induce the expression of genes involved in cellular differentiation and survival
"TNFα"	Tumor Necrosis Factor-α, an inflammatory cytokine produced by macrophages during acute inflammation, leading to necrosis or apoptosis
"Tol2"	an autonomously active transposon, containing a gene encoding a complete and functional transposase that is capable of identifying, excising, and reinserting the DNA element defined by its inverted terminal repeats (ITR) or other elements with the same ITRs
"toxicity"	the degree to which a substance or a mixture of substances can harm humans or animal
"Unlisted Share(s)"	ordinary share(s) issued by our Company, with a nominal value of RMB1.0 each, which is/are subscribed for or credited as paid in a currency other than Renminbi, held by foreign investors and not listed on any stock exchange, and Domestic Shares
"USA"	the United Stated of America
"USD"	United States dollars, the lawful currency of the United States of America
"YH001"	YH001 is a recombinant humanized anti-CTLA-4 IgG1 monoclonal antibody
"YH002"	YH002 is a recombinant humanized IgG1 antibody that targets the human OX40 receptor
"YH003"	YH003 is a recombinant, humanized agonistic anti – Cluster of Differentiation 40 IgG2 monoclonal antibody

"YH004"	YH004 is a humanized IgG1 anti-4-1BB Agonists
"YH008"	YH008 is an anti-PD-1/CD 40 bi-specific antibody for the treatment of solid tumors
"YH012" and "YH013"	YH012 and YH013 are two bi-specific ADCs developed using our RenLite platform, which are intended for the treatment of solid tumor
"YH015"	YH015 is a fully human IgG1 antagonistic monoclonal antibody targeting CD40
"YH016" and "YH017"	YH016 and YH017 are two novel molecules developed using our RenMice platform, which are intended for the treatment of solid tumor and immune diseases respectively
"4-1BB"	a receptor expressed on activated T cells and NK cells which gives costimulatory signals to promote T cell division and survival, activate cytotoxic effects and help form memory T cells

By order of the Board
Biocytogen Pharmaceuticals (Beijing) Co., Ltd.
Shen Yuelei
Chairman of the Board, Chief Executive Officer and Executive Director

Hong Kong, March 27, 2023

As at the date of this announcement, the board of directors of the Company comprises Dr. Shen Yuelei as chairman, chief executive officer and executive Director, Dr. Ni Jian and Dr. Zhang Haichao as executive Directors; Mr. Wei Yiliang, Dr. Zhou Kexiang and Ms. Zhang Leidi as non-executive Directors; Mr. Hua Fengmao, Dr. Yu Changyuan and Ms. Liang Xiaoyan as independent non-executive Directors.