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BIOCYTOGEN PHARMACEUTICALS (BEIJING) CO., LTD.

百奥赛图(北京)医药科技股份有限公司

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

(Stock Code: 2315)

ANNOUNCEMENT OF INTERIM RESULTS FOR THE SIX MONTHS ENDED JUNE 30, 2023

The board (the “**Board**”) of directors (the “**Director(s)**”) of Biocytogen Pharmaceuticals (Beijing) Co., Ltd. (the “**Company**” or “**Biocytogen**”) is pleased to announce the unaudited consolidated results of the Company and its subsidiaries (together, the “**Group**”) for the six months ended June 30, 2023 (the “**Reporting Period**”), together with comparative figures for the same period of 2022.

FINANCIAL HIGHLIGHTS

	Six months ended June 30, 2023 RMB'000 (Unaudited)	Six months ended June 30, 2022 RMB'000 (Unaudited)	Period-to- period change %
Revenue	326,836	229,131	42.6
Gross profit	235,364	166,970	41.0
Loss before taxation	(189,389)	(272,593)	(30.5)
Loss for the period	(189,809)	(272,593)	(30.4)
Loss for the period attributable to equity shareholders of the Company	(189,808)	(272,385)	(30.3)
Total comprehensive income for the period	(190,098)	(272,236)	(30.2)
Loss per share basic and diluted (RMB)	(0.48)	(0.73)	(34.2)

* Certain amounts and percentage figures included in this announcement have been subject to rounding adjustment, or have been rounded to one or two decimal places. any discrepancies in any tables, charts or else where between totals and sums of amounts listed therein are due to rounding.

INTERIM RESULTS

The Board is pleased to announce the unaudited consolidated results of the Group for the six months ended June 30, 2023, as follows:

CONSOLIDATED STATEMENTS OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME

*For the six months ended June 30, 2023 – unaudited
(Expressed in RMB)*

		Six months ended June 30,	
	Notes	2023	2022
		RMB'000	RMB'000
Revenue	3	326,836	229,131
Cost of sales		<u>(91,472)</u>	<u>(62,161)</u>
Gross profit		235,364	166,970
Other gains and losses, net	4	20,960	38,381
Net change in fair value of biological assets	5	942	10,233
Selling and marketing expenses		(29,506)	(24,241)
General and administrative expenses		(117,532)	(107,625)
Research and development expenses		<u>(247,970)</u>	<u>(327,819)</u>
Loss from operations		(137,742)	(244,101)
Finance costs	6(a)	(46,664)	(19,008)
Share of loss of an associate		<u>(4,983)</u>	<u>(9,484)</u>
Loss before taxation		(189,389)	(272,593)
Income tax	7	<u>(420)</u>	<u>–</u>
Loss for the period		(189,809)	(272,593)
Other comprehensive income for the period (after tax)			
– Exchange differences on translation of financial statements of foreign operations		<u>(289)</u>	<u>357</u>
Total comprehensive income for the period		<u>(190,098)</u>	<u>(272,236)</u>

	<i>Notes</i>	Six months ended June 30,	
		2023	2022
		RMB'000	RMB'000
Loss for the period attributable to:			
Equity shareholders of the Company		(189,808)	(272,385)
Non-controlling interests		(1)	(208)
		<u> </u>	<u> </u>
Loss for the period		<u> </u>	<u> </u>
Total comprehensive income for the period attributable to:			
Equity shareholders of the Company		(190,097)	(272,028)
Non-controlling interests		(1)	(208)
		<u> </u>	<u> </u>
Total comprehensive income for the period		<u> </u>	<u> </u>
Loss per share			
Basic and diluted (RMB)	8	<u> </u>	<u> </u>
		<u> </u>	<u> </u>

CONSOLIDATED STATEMENTS OF FINANCIAL POSITION

At 30 June 2023 – unaudited

(Expressed in RMB)

	<i>Notes</i>	At June 30, 2023 RMB'000	At December 31, 2022 RMB'000
Non-current assets			
Property, plant and equipment		1,591,535	1,599,079
Intangible assets		31,969	30,652
Interests in associates		193,419	197,944
Other non-current assets		54,344	52,861
		1,871,267	1,880,536
Current assets			
Inventories		14,350	18,604
Contract costs		49,274	41,361
Biological assets		76,839	76,498
Trade and bills receivables	<i>10</i>	114,681	107,682
Prepayments and other receivables		31,706	40,332
Other financial assets		8,583	8,198
Cash at bank and on hand		551,088	626,621
		846,521	919,296
Current liabilities			
Trade and bills payables	<i>11</i>	124,881	146,190
Contract liabilities		81,369	56,377
Other payables		212,293	231,072
Bank and other loans		182,257	126,665
Lease liabilities		47,537	44,938
Current taxation		1,224	804
		649,561	606,046
Net current assets		196,960	313,250
Total assets less current liabilities		2,068,227	2,193,786

	<i>Notes</i>	At June 30, 2023 RMB'000	At December 31, 2022 RMB'000
Non-current liabilities			
Deferred income		88,503	89,934
Lease liabilities		186,776	191,507
Long-term payables		775,531	709,359
Bank and other loans		52,509	52,170
		<u>1,103,319</u>	<u>1,042,970</u>
NET ASSETS		<u>964,908</u>	<u>1,150,816</u>
CAPITAL AND RESERVES			
Share capital	<i>9</i>	399,398	399,398
Reserves		560,960	746,867
Total equity attributable to equity shareholders of the Company		960,358	1,146,265
Non-controlling interests		4,550	4,551
TOTAL EQUITY		<u>964,908</u>	<u>1,150,816</u>

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 November 13, 2009 in the People’s Republic of China (the “**PRC**”) and was converted into a joint stock company on December 29, 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 September 1, 2022.

2 BASIS OF PREPARATION AND CHANGES IN ACCOUNTING POLICIES

(1) Basis of preparation

This interim financial report has been prepared in accordance with the applicable disclosure provisions of the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited, including compliance with International Accounting Standard (“**IAS**”) 34, Interim financial reporting, issued by the International Accounting Standards Board (“**IASB**”). It was authorised for issue on August 28, 2023.

The interim financial report has been prepared in accordance with the same accounting policies adopted in the 2022 annual financial statements, except for the accounting policy changes that are expected to be reflected in the 2023 annual financial statements. Details of these changes in accounting policies are set out in Note 2(2).

The preparation of an interim financial report in conformity with IAS 34 requires management to make judgements, estimates and assumptions that affect the application of policies and reported amounts of assets and liabilities, income and expenses on a year to date basis. Actual results may differ from these estimates.

This interim financial report contains condensed consolidated financial statements and selected explanatory notes. The notes include an explanation of events and transactions that are significant to an understanding of the changes in financial position and performance of the Group since the 2022 annual financial statements. The condensed consolidated interim financial statements and notes thereon do not include all of the information required for a full set of financial statements prepared in accordance with International Financial Reporting Standards (“**IFRSs**”).

The interim financial report is unaudited, but has been reviewed by KPMG in accordance with Hong Kong Standard on Review Engagements 2410, Review of interim financial information performed by the independent auditor of the entity, issued by the Hong Kong Institute of Certified Public Accountants.

(2) Changes in accounting policies

The Group has applied the following new and amended IFRSs issued by IASB to this interim financial report for the current accounting period:

- IFRS 17, *Insurance contracts*
- Amendments to IAS 8, *Accounting policies, changes in accounting estimates and errors: Definition of accounting estimates*
- Amendments to IAS 12, *Income taxes: Deferred tax related to assets and liabilities arising from a single transaction*
- Amendments to IAS 12, *Income taxes: International tax reform – Pillar Two model rules*

The Group has not applied any new standard or interpretation that not yet effective for the current accounting period. Impacts of the adoption of the new and amended IFRSs are discussed below:

IFRS 17, *Insurance contracts*

IFRS 17, which replaces IFRS 4, sets out the recognition, measurement, presentation and disclosure requirements applicable to issuers of insurance contracts. The standard does not have a material impact on these financial statements as the Group does not have contracts within the scope of IFRS 17.

Amendments to IAS 8, *Accounting policies, changes in accounting estimates and errors: Definition of accounting estimates*

The amendments provide further guidance on the distinction between changes in accounting policies and changes in accounting estimates. The amendments do not have a material impact on these financial statements as the Group's approach in distinguishing changes in accounting policies and changes in accounting estimates is consistent with the amendments.

Amendments to IAS 12, *Income taxes: Deferred tax related to assets and liabilities arising from a single transaction*

The amendments narrow the scope of the initial recognition exemption such that it does not apply to transactions that give rise to equal and offsetting temporary differences on initial recognition such as leases and decommissioning liabilities are required to be recognised from the beginning of the earliest comparative period presented, with any cumulative effect recognised as an adjustment to retained earnings or other components of equity at that date. For all other transactions, the amendments are applied to those transactions that occur after the beginning of the earliest period presented. The amendments do not have a material impact on these financial statements.

Amendments to IAS 12, *Income taxes: International tax reform – Pillar Two model rules*

The amendments introduce a temporary mandatory exception from deferred tax accounting for the income tax arising from tax laws enacted or substantively enacted to implement the Pillar Two model rules, published by the Organisation for Economic Co-operation and Development (“OECD”) (income tax arising from such tax laws is hereafter referred to as “**Pillar Two income taxes**”), including tax laws that implement qualified domestic minimum top-up taxes described in those rules. The amendments also introduce disclosure requirements about such tax. The amendments are immediately effective upon issuance and require retrospective application. The amendments do not have a material impact on these financial statements.

3 REVENUE AND SEGMENT REPORTING

(a) Revenue

The Group is principally engaged in providing gene editing services, pre-clinical pharmacology and efficacy evaluation services, antibody development, selling animal models and innovative drugs development. Currently the Group have no products approved for commercial sale and have not generated any revenue from sales of drug candidates. Disaggregation of revenue from contracts with customers by major service lines is as follows:

	Six months ended June 30,	
	2023	2022
	RMB'000	RMB'000
Gene editing	33,429	29,252
Pre-clinical pharmacology and efficacy evaluation	89,541	65,416
Animal models selling	115,219	72,858
Antibody development	88,245	61,345
Others	402	260
	326,836	229,131

For the six months ended June 30, 2023, one customer had transactions with the Group which exceeded 10% of the Group’s revenue, amounting to RMB50,441,000 (For the six months ended June 30, 2022: one customer with RMB40,000,000).

(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 developing 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 for the period is set out below.

	Six months ended June 30, 2023						
	Gene editing <i>RMB'000</i>	Pre-clinical pharmacology and efficacy evaluation <i>RMB'000</i>	Animal models selling <i>RMB'000</i>	Antibody development <i>RMB'000</i>	Innovative drugs development <i>RMB'000</i>	Others <i>RMB'000</i>	Total <i>RMB'000</i>
Disaggregated by timing of revenue recognition							
Point in time	33,429	89,541	115,219	88,245	-	402	326,836
Revenue from external customers	33,429	89,541	115,219	88,245	-	402	326,836
Inter-segment revenue	-	-	11,231	-	-	-	11,231
Reportable segment revenue	33,429	89,541	126,450	88,245	-	402	338,067
Reportable segment gross profit	14,071	57,363	87,591	76,751	-	402	236,178
	Six months ended June 30, 2022						
	Gene editing <i>RMB'000</i>	Pre-clinical pharmacology and efficacy evaluation <i>RMB'000</i>	Animal models selling <i>RMB'000</i>	Antibody development <i>RMB'000</i>	Innovative drugs development <i>RMB'000</i>	Others <i>RMB'000</i>	Total <i>RMB'000</i>
Disaggregated by timing of revenue recognition							
Point in time	29,252	65,416	72,858	61,345	-	260	229,131
Revenue from external customers	29,252	65,416	72,858	61,345	-	260	229,131
Inter-segment revenue	-	-	19,599	-	-	-	19,599
Reportable segment revenue	29,252	65,416	92,457	61,345	-	260	248,730
Reportable segment gross profit	12,799	43,552	59,943	54,415	-	78	170,787

(ii) **Reconciliations of reportable segment gross profit**

	Six months ended June 30,	
	2023 <i>RMB'000</i>	2022 <i>RMB'000</i>
Reportable segment gross profit	236,178	170,787
Elimination of inter-segment gross profit	(814)	(3,817)
Consolidated gross profit	<u>235,364</u>	<u>166,970</u>

(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:

	Six months ended June 30,	
	2023 <i>RMB'000</i>	2022 <i>RMB'000</i>
The PRC	154,187	141,002
The United States of America ("USA")	116,577	62,736
Others	56,072	25,393
	<u>326,836</u>	<u>229,131</u>

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 June 30, 2023 <i>RMB'000</i>	As at December 31, 2022 <i>RMB'000</i>
	The PRC	1,384,330
USA	240,318	176,693
Others	339	–
	<u>1,624,987</u>	<u>1,629,731</u>

4 OTHER GAINS AND LOSSES, NET

	Six months ended June 30,	
	2023	2022
	<i>RMB'000</i>	<i>RMB'000</i>
Net gain/(loss) on disposal of property, plant and equipment	27	(151)
Change in fair value of financial assets at fair value through profit or loss (“FVTPL”)	75	–
Interest income	5,504	821
Government grants	2,463	3,230
Gain on disposal of interest in an associate	–	24,124
Gain on deemed disposal of interest in a subsidiary	–	1,702
Net realised losses on derivative financial instruments	–	(2,414)
Net foreign exchange gain	12,899	10,488
Others	(8)	581
	<u>20,960</u>	<u>38,381</u>

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 period. During the six months ended June 30, 2023, net fair value change consists of (i) negative realised fair value changes of RMB59,940,000 (six months ended June 30, 2022: RMB56,018,000) and (ii) positive unrealised fair value changes of RMB60,882,000 (six months ended June 30, 2022: RMB66,251,000).

6 LOSS BEFORE TAXATION

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

(a) Finance costs

	Six months ended June 30,	
	2023	2022
	<i>RMB'000</i>	<i>RMB'000</i>
Interest on long-term payables	36,323	15,299
Interest on lease liabilities	6,233	3,342
Interest on bank and other loans	4,108	367
	<u>46,664</u>	<u>19,008</u>

(b) **Staff costs**

	Six months ended June 30,	
	2023	2022
	RMB'000	RMB'000
Salaries, wages and other benefits	167,322	170,220
Contributions to defined contribution retirement schemes	15,457	15,717
Equity-settled share-based payment expenses	12,399	18,127
	<u>195,178</u>	<u>204,064</u>

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**

	Six months ended June 30,	
	2023	2022
	RMB'000	RMB'000
Depreciation charge on property, plant and equipment	80,640	76,477
Amortisation cost of intangible assets	3,423	925
Recognition/(reversal) of impairment losses on trade receivables and other receivables	1,072	(865)
Impairment of inventories and contract costs	1,941	1,389
Cost of inventories	58,311	93,005

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

	Six months ended June 30,	
	2023	2022
	RMB'000	RMB'000
Current tax		
Provision for the period	<u>(420)</u>	<u>—</u>
	<u>(420)</u>	<u>—</u>

8 LOSS PER SHARE

(a) Basic loss per share

The calculation of basic earnings per share is based on the loss attributable to ordinary equity shareholders of the Company of RMB189,808,000 (six months ended June 30, 2022: RMB272,385,000) and the weighted average of 398,379,000 ordinary shares in issue during the six months ended June 30, 2023 after considering the effect of the shares purchased for share incentive plan (six months ended June 30, 2022: 374,930,000 shares).

(b) Diluted loss per share

There were no potential dilutive ordinary shares for the six months ended June 30, 2023 and 2022, therefore diluted loss per share for the period were the same as basic loss per share for the respective period.

9 CAPITAL, RESERVES AND DIVIDENDS

(a) Dividends

No dividends have been declared or paid by the Company during the six months ended June 30, 2023 (during the six months ended June 30, 2022: nil).

(b) Purchase of own shares

On October 17, 2022, the Board of Directors approved a share award scheme (the “**2022 Share Award Scheme**”), pursuant to which the Company are able to grant restricted shares to the eligible directors and employees of the Group (the “**Selected Employees**”). The 2022 Share Award Scheme remained in force for a period commencing on November 7, 2022 and ended on November 7, 2032.

The Company has appointed a trustee for administration of the 2022 Share Award Scheme (the “**Trustee**”). The principal activity of the Trustee is administrating and holding the Company’s shares for the Share Award Scheme for the benefit of the Selected Employees. Pursuant to the 2022 Share Award Scheme, the Company’s shares will be purchased by the Trustee in the market out of cash contributed by the Company and held in the trust for relevant employees until such shares are vested in the relevant beneficiary in accordance with the provisions of the 2022 Share Award Scheme at no cost.

As at June 30, 2023, total number of shares held by the Trustee was 1,148,000 at a total cost (including related transaction costs) of RMB27,654,000, which is reflected as shares held for the 2022 Share Award Scheme.

During the six months ended June 30, 2023, the Company has granted a total of 1,138,388 shares to the Selected Employees which had not been vested as at June 30, 2023.

10 TRADE AND BILLS RECEIVABLES

	As at June 30, 2023 RMB’000	As at December 31, 2022 RMB’000
Trade receivables	122,646	114,750
Less: loss allowance	(8,162)	(7,068)
	114,484	107,682
Bills receivable	197	–
	114,681	107,682

Ageing analysis of trade receivables

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 June 30, 2023 <i>RMB'000</i>	As at December 31, 2022 <i>RMB'000</i>
Within 1 year	107,072	97,183
1 to 2 years	6,313	9,157
2 to 3 years	1,099	1,342
	<u>114,484</u>	<u>107,682</u>

11 TRADE AND BILLS PAYABLES

	As at June 30, 2023 <i>RMB'000</i>	As at December 31, 2022 <i>RMB'000</i>
Trade payables	107,316	105,501
Bills payable	17,565	40,689
	<u>124,881</u>	<u>146,190</u>

Ageing analysis

As of the end of the reporting period, the ageing analysis of trade payables, based on the invoice date, is as follows:

	As at June 30, 2023 <i>RMB'000</i>	As at December 31, 2022 <i>RMB'000</i>
Within 1 year	119,186	145,467
After 1 year but within 2 years	5,023	312
After 2 years but within 3 years	672	411
	<u>124,881</u>	<u>146,190</u>

MANAGEMENT DISCUSSION AND ANALYSIS

I. Business Review

Overview

Founded in 2009, we are a global biotechnology company dedicated to novel antibody drug discovery and pre-clinical research services. Unlike traditional chemical drugs, which are synthesized by drug manufacturers through precise formulations, biopharmaceuticals are manufactured in living organisms and are more complex protein molecules. The pre-clinical research services industry mainly consists of pre-IND drug discovery and pre-clinical pharmacology and efficacy evaluation services. Drug discovery is a systematic process that requires interdisciplinary collaboration to develop effective and commercially viable drugs, and early drug discovery is the foundation for drug transfer.

Since the second half of 2022, due to the impact of the global macroeconomic situation, the financing situation and business operating environment of the global biopharmaceutical industry have faced severe challenges, and the Chinese market has also been seriously affected, with biopharmaceutical and biotechnology companies making adjustments by reducing their drug pipelines and scaling back R&D expenditures, among other things. In the face of the severe external environment, we have also been making internal adjustments to better cope with the challenges. Focusing our resources, we have, on the one hand, relied on our technological advantages in various business lines to further develop overseas markets and maintain rapid growth in sales revenue and a better level of gross profit margin. On the other hand, we have adjusted our R&D strategy to enter into joint development of a number of drug molecules with more collaborators in order to improve the efficiency of R&D and to control our own R&D expenditures. Furthermore, the Company continued to improve its operational efficiency, including drug pipelines like YH008, and realized a rapid narrowing of its losses by curtailing various types of expenses.

Our business model, correspondingly, consists of transferring early-stage antibody sequences generated by Project Integrum, as well as joint development/authorization of transfer/transfer of development pre-clinical and early-clinical drug molecules through our drug development business and providing innovative animal models and pre-clinical research services with high technological barriers, which are two distinctive business segments. Through our unique technological advantages and high-quality R&D services, the Company's business lines maintained rapid growth in sales revenue in 2023, with orders and revenue growth in overseas markets particularly prominent, and the Company's sales revenue maintained a rapid growth of over 40% in the first half of 2023. By adjusting our R&D strategy and enhancing our operational efficiency, the Company's expenses were effectively controlled, and the Company's loss in the first half of 2023 was narrowed by approximately 30% year-on-year.

Our drug development business includes (i) antibody development business that we utilize our own antibody discovery platforms RenMice and Project Integrum 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. In addition to licensing antibody sequences, we also provide early drug discovery services to our collaborators; (ii) selecting a small number of potential drug targets in the field of oncology and self-immunity, screen and obtain potential PCC molecules, independently advance to CMC/toxicity studies, IND and Phase I clinical stage, and in the process of R&D advancement, joint development/authorization of transfer/transfer of development all or part of the product interests to foreign countries to obtain the down-payment, the milestones payment and share of sales, so as to achieve the sustainable growth of revenues in the short-term and the medium-to-long-term, fulfilling our vision of becoming a global headstream of new drugs.

Our pre-clinical research services include gene editing, pre-clinical pharmacology and efficacy evaluation, and animal models selling. We keep pace with the R&D needs of global biopharmaceutical companies, providing innovative and cutting-edge pre-clinical services and animal models for a wider range of indications. Our capabilities are validated through our years of services provided to multinational companies and domestic biotechnology companies and evidenced by our in-house clinical-stage drug candidates. Our services and products are widely recognized by overseas and domestic customers and have provided the basis for our fast-growing revenues and high gross margins.

1. PRODUCTS AND PIPELINE

Relying on our original gene editing technology, we continue to expand our unique RenMice antibody development platform, and 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 discovery of drug molecules, or a small number of promising drug molecules are autonomously advanced to the pre-clinical or early clinical stage to form pre-clinical drug molecule assets or early clinical drug assets, then enter into co-development/transfer development with biotech and biopharmaceutical partners which will primarily drive the acceleration of the following pre-clinical development, clinical development and commercialization of individual antibody drug molecules. We currently have no plans to invest our own resources to lead later Phase clinical for pipeline candidates development and commercialization in the near future.

As of June 30, 2023, we had strategically designed and built a selective antibody drug pipeline of 10 drug candidates, including five clinical stage candidates and five pre-clinical stage candidates. Three 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.

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 Latest Practicable Date:

Candidate	Target	Combination	Indication	Pre-clinical	IND	Phase I	Phase II	Phase III	Right	Partner	
Clinical-stage Drug Candidates	★ YH003	CD40	Pancreatic ductal adenocarcinoma (first-line/second-line)	Global MRCT					Global		
			Mucosal melanoma	China							
			Solid tumors	Global MRCT							
	★ YH001	CTLA-4	PD-L1+chemo	Sarcoma	America				Outside North America	Tracon Pharmaceuticals (Outside North America)	
	YH002	OX40	YH001	Solid tumors	Global MRCT					Global	
			YH003+YH001	Intratumoral Immunotherapy	Pre-IND						
YH004	4-1BB	Monotherapy	Solid tumor + hematological malignancy	Australia and China					Global		
YH008	PD-1 x CD40 BsAb	Monotherapy	Solid tumors	China					Outside Greater China	Chipscreen NewWay (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 We are in cooperation with ISU ABXIS to develop a tri-specific antibody based on the YH003 sequence, through which we are entitled to receive upfront payments, milestone payments, and future sales royalties.
- 2 We can collect licensing fee from RemeGen for licensing YH005.
- 3 We 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. And we retain global rights for YH008 outside of Greater China.
- 4 We can collect licensing fee from GeneQuantum for PD-L1 mAb, and both parties jointly own the intellectual property rights.
- 5 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 NecrosisFactor Receptor Superfamily, member 4
 4-1BB: Also known as TNFRSF9, Tumor Necrosis FactorReceptor Superfamily, member 9
 PD-1: Programmed Death-1
 PD-L1: Programmed Death-1ligand 1
 ADC: Antibody Drug Conjugate
 CMC: Chemistry, Manufacturing, and Controls
 MRCT: Multi-regional Clinical Trial(s)
 HER2: Human epidermal growth factor receptor 2
 TROP2: Trophoblast cell surface antigen 2
 EGFR: Epidermal growth factor receptor
 MET: MET proto-oncogene

1.1 PRODUCTS SELF-DEVELOPED

Our Core Products

YH003 – a humanized IgG2 agonistic monoclonal antibody target CD40

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

We initiated the research and development of YH003 in 2017, and conducted a Phase I clinical trial in Australia to evaluate the safety, tolerability, efficacy and pharmacokinetics of YH003 in combination with toripalimab (anti-PD-1 mAb) in patients with advanced solid tumors. We also obtained the IND approval from the NMPA and conducted a Phase I clinical trial of YH003 as monotherapy in advanced solid tumor patients in China.

The Phase I clinical trial of YH003 in combination with PD-1 in Australia is now completed. 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 study 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, iv q3W. Among the 26 enrolled patients, three patients achieved PR and six patients achieved SD. One subject after nearly 2 years of study treatment, achieved a tumor assessment of complete response (CR) in August 2022, and was keeping at CR status as of June 30, 2023.

Data from the Phase I clinical trial demonstrated that YH003 in combination with toripalimab was well tolerated and showed promising antitumor activity in some types of cancers, such as pancreatic cancer.

Pancreatic cancer is the fourth leading cause of cancer-related death worldwide. The current standard care for First-line (1L) treatment options for metastatic PDAC (mPDAC) include FOLFIRINOX and also gemcitabine plus nab-paclitaxel. However, median overall survival (OS) with 1L therapy is approximately 8.7 months with the nab-paclitaxel-gemcitabine therapy. Second-line (2L) treatment options are very limited, and it has not been definitively established that subsequent chemotherapy improves survival after failure of 1L chemotherapy.

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, and are conducting the study in patients pancreatic duct adenocarcinoma (PDAC) to explore the safety and efficacy of YH003 in combination with toripalimab, with or without chemotherapy, in the U.S., mainland China, Australia, New Zealand, and Taiwan. The first patient was dosed in Australia in December 2021.

As of June 30, 2023, a total of 92 PDAC subjects were enrolled and received at least one dose of any study drug, including 47 subjects in the first line treatment group and 45 subjects in the second and later line treatment group. During the study, YH003 in combination with toripalimab, with or without chemotherapy, are well tolerated and achieved promising clinical efficacy. The study is ongoing and the results are expected to be reported in 2024.

Study YH003006 is a Phase II clinical trial of YH003 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 June 30, 2023, 20 subjects were enrolled and exposed to YH003. During the study, YH003 was well tolerated and achieved promising clinical efficacy in this subtype of melanoma, which is highly prevalent in Asia. The study is on-going.

Study YH003005 is a phase I study of YH003 in combination with anti-PD1 and YH001 for the treatment of advanced solid tumors in China and Australia to evaluate the safety, tolerability and pharmacokinetics of the combination of YH003, YH001 and pembrolizumab in subjects with advanced solid tumors. As of June 30, 2023, 15 subjects in total were enrolled and exposed to YH003. The study is on-going for dose escalation.

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 and IND approval from NMPA in January 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. As of June 30, 2023, 14 subjects were enrolled and received 0.01 mg/kg (n=1), 0.03 mg/kg (n=1), 0.1 mg/kg (n=3), 0.3 mg/kg (n=3), 1.0mg/kg (n=3) and 3.0mg/kg (n=3) iv q3W. To date, YH004 monotherapy is safe and well tolerated up to 3.0 mg/kg dose levels. The dose escalation study is ongoing.

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 is a novel fully human monoclonal antibody drug discovered with the RenMab platform. It specifically binds to a newly identified receptor that is restricted to myeloid lineage. The target of YH016 is shown to be highly enriched in multiple types of cancer, rendering YH016 is a promising therapeutics. Now, several candidates with excellent in vivo and in vitro activities have been obtained.

YH017 is another fully human antibody drug based on the RenMab technology. It recognizes a key cytokine receptor expressed on T cells and natural killer cells. Blocking the cognate ligand binding can present the downstream signaling cascade that is essential for proper T cell activation, especially in the scenario of immune cell overactivation. YH017 has a strong potential for the treatment of multiple autoimmune diseases, e.g. colitis and rheumatoid arthritis. Currently, we have discovered an optimal candidate molecule with ultra-high affinity and blocking activity.

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 June 30, 2023, this study has been completed. 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. The ORR was 19.2% (95% CI: 6.6, 39.4) and the DCR was 61.5% (95% CI: 40.6, 79.8) according to RECIST v1.1. We completed a Phase I clinical trial of YH001 as a single agent in patients with advanced solid tumors in China. Data from the Phase I clinical trial demonstrated that YH001 was well tolerated up to 6.0 mg/kg dose levels and showed promising antitumor activity in some types of cancers.

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 Envafolelimab 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 further explore the clinical research for additional solid tumor and other types of indications for YH001 by aligning with the partners' R&D programs.

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 the study is ongoing. As of June 30, 2023, a total of 15 patients were enrolled to receive study drug administration.

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”).

Study YH002002

We completed the 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.

The study, starting dose at 0.01mg/kg, utilized accelerated titration and traditional “3+3” dose-escalation methodology with 8 dose levels of 0.03, 0.1, 0.3, 1.0, 3.0, 6.0, and 12.0 mg/kg in sequential dose increments, and subjects were allowed to be treated with the study drug for a maximum of 2 years based on the investigator’s determination. This first-in-human (FIH) study of YH002 was completed with a 46.7% incidence of YH002-associated adverse events across all levels in the safety analysis set (n=15), the majority of which were Grade 1 or 2. A total of 2 (13.3%) subjects reported Grade 3 or 4 YH001-related TEAEs, and no Grade 5 drug-related TEAEs were reported. 3 (20%) subjects (all in the highest dose 3.0 mg/kg group) reported serious adverse events related to the study drug, and there were no drug-related deaths. 1 case was observed in 3 subjects in the 3.0 mg/kg dose group DLT, the results of this dose-escalation study showed that YH002 monotherapy was well tolerated at dose levels up to 2.0 mg/kg.

All subjects in the study (n=15) experienced disease progression after at least one line of anticancer therapy, of which 5 (33.3%) were patients with advanced solid tumors who had experienced disease progression after 3 or more lines of prior therapy. Of the 15 subjects with at least one post-dose tumor imaging assessment, the investigators assessed that the best efficacy was stable disease (SD) in 3 subjects according to RECIST v1.1. Based on the efficacy analysis set, the investigator-adjudicated disease control rate (DCR) was 20%.

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..

Study YH002004

We are conducting a clinical trial of YH002 in combination with YH001 in patients with advanced solid tumors in China and Australia. As cut-off date of June 30, 2023, the recruitment has been completed. A total of 16 patients have enrolled in the study and the study is still ongoing.

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. In 2023, we have established technology transfer agreement with Syncromune, which is an expansion to the previous license agreement in 2022. Under the newly signed agreement, Syncromune will be granted an option right and upon option-exercise, we will provide technical transfer to Syncromune for the manufacture of YH002 and other clinical-stage antibodies for its use of intratumoral immunotherapy based on Syncrovax™ technology. Under the newly signed agreement, Syncromune will pay Eucure an upfront fee and Eucure is entitled to receive potential milestone fees. Currently, Syncromune has started clinical trials for this Syncrovax therapy in Mexico and obtained promising anti-tumor activity preliminary clinical data.

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

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**”, 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. By June 30, 2023, Eucure Biopharma has received upfront fee and NMPA IND milestone payment. YH008 will be advanced to clinical development stage by the Chipscreen NewWay R&D team. The target combination is the first of its kind in the world and belongs to therapeutic biologics category 1: innovative biologics. The molecule has been approved by China’s NMPA for a multi-center Phase I dose-escalation clinical study that will evaluate the safety, tolerability and preliminary efficacy of NWY001 (YH008) in subjects with advanced tumors. The study is currently in progress and patient enrollment for the Phase I study is expected to begin in the third quarter of 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. In December 2022, 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. In April 2023, the Phase I/IIa clinical study of RC118 in combination with PD-1 monoclonal antibody in Claudin18.2 expression-positive locally advanced unresectable or metastatic malignant solid tumors was formally approved by the CDE.

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 and RemeGen has strong capabilities in the development of 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.

1.2 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, it is expected that by the third quarter of 2023, we will have completed most of the work on Project Integrum. As of June 30, 2023, Project Integrum is progressing well, approximately 1,000 targets have been evaluated and more than 800 of them have been developed. Among others, we have knocked out more than 680 target genes in target knockout RenMab, and more than 270 target genes in target knockout RenLite, 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 the future, based on our RenLite and RenNano technology platforms, we plan to continue to introduce innovative drug-ready molecules, such as bis-antibodies and nano-antibodies, in order to expand the richness of the antibody library formed by Project Integrum.

Unlike traditional antibody development strategies, we have changed our approach from “preparing antibodies based on customer demand” to “developing hundreds of thousands of antibody molecules in advance for shelf-ready supply against thousands of targets”, which allows our customers to obtain high-quality antibody molecules for the drug targets they intend to develop instantly according to their R&D plans, without having to develop them from scratch. Based on the advantages of RenMice technology platform and RenMice knockout followed by immunization, we have formed a unique scale-up antibody development process, forming a globally unique library of high-quality, fully human antibody molecules, with a great diversity of antibody molecule libraries and complete antibody molecule data that can be used by various pharmaceutical companies to screen and obtain ideal antibody molecules according to their R&D needs. Generally, compared with the traditional drug development method, we can save more than 2 years of pre-clinical development time for our partners, thus greatly accelerating the progress of new drug development.

In respect of business model, we utilized co-development, out-licensing, transfer development and other collaboration opportunities to commercialise the 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, achieving revenue growth in the antibody development business in both the short and medium to long term. 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.

In terms of cooperation, as at June 30, 2023, we have reached 50 co-development/out-licensing/transfer development deals, including but not limited to Merck Healthcare KGaA, ADC Therapeutics, Hansoh Pharma and Nanjing Chia-Tai Tianqing Pharmaceutical Company. Sixteen new deals were signed in the first half of 2023, representing a 45% increase in the number of projects signed in the same period last year.

2. PRE-CLINICAL RESEARCH SERVICES AND PRODUCTS

Our pre-clinical research services and products 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 face of the challenging market environment at home and abroad, the Company focuses its market development on overseas. 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, enhancing coverage of local customers. A German subsidiary in Europe was established in 2022 and expanding and commissioned the Boston, U.S. test site, in the hope of better serving overseas pharmaceutical customers and leveraging the proportion of overseas sales. In 2023, the Company has further expanded the Boston, U.S. facility to triple its original size, which has officially opened in August 2023. These measures achieved significant sales growth in the Reporting Period.

As one of the core drivers of our sales revenue growth, we continue to maintain a high level of R&D investment for the development of globally competitive and enriched animal models, as well as providing high-quality pre-clinical CRO services to domestic and international pharmaceutical clients, maintaining high gross margins and rapid revenue growth despite the challenging market environment.

2.1 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, ADCs, BsAb and BsADC, CAR-Ts and CAR-NKs, mRNA-LNP and gene therapy and other therapeutic modalities for immuno-oncology, immune and autoimmune, CNS, Ocular diseases as well as metabolic diseases as well as kidney diseases to support drug discovery and development worldwide. Our services utilize a large collection of genetically humanized mouse models for checkpoint inhibitors and 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 2,500 drug evaluation projects for approximately 500 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 favorable 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 CNS diseases, Ocular diseases, metabolic disease models as well as kidney diseases 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.

2.2 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.

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.

2.3 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 2,900 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 assets 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 the Reporting Period.

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 of animal models 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 Format Homologous Immune Checkpoint and Other Humanized Mice

The mechanisms of cytokine involvement in autoimmune diseases have been studied in depth. AbbVie has developed adalimumab, which targets TNF, and has been approved by the FDA for 11 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.

In terms of market strategy, we continue to actively develop overseas markets to enhance the rapid growth of overseas revenue. By increasing publicity, we have shaped the image of our Company as a professional biotechnology company and expanded our recognition in the industry; we have expanded and adjusted our sales team according to different business lines and types of customers, added new coverage areas, and strengthened our quick response to customers' needs; we have expanded the Company's R&D and production facilities in Boston and expanded the R&D and production teams of our Boston subsidiaries, so that we can better provide localized services to our U.S. pharmaceutical customers. We achieved 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 all top ten overseas pharmaceutical companies. The total revenue of overseas business and its proportion of our total revenue continue to increase.

In the year of 2022, we set up a new subsidiary in Heidelberg, Germany, and started to have sales teams based all over Europe. In May 2023, the Company set up an office in San Francisco, U.S. and officially put it into operation, which is able to provide timely response service for customers on the west coast of the U.S.. In August 2023, the Company has relocated to the newly leased laboratory and animal house in Boston, U.S, and the commissioning of the new facilities is able to bring the Company a greater business carrying capacity. In addition, we are recruiting more business developers with abroad bases to actively expand coverage of local customers and 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 six months ended June 30, 2023 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 pre-clinical product assets 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 assets.

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.

Our Gene Editing Technology

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 a series of transgenic RenMice platforms and created a comprehensive set of antibody discovery and animal model platform.

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 4,500 customized gene editing projects for our clients and self-developed approximately 2,900 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.

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 RenT Cell Receptor-Mimic (RenTCRm) technology platform for drug development of antibodies against intracellular targets and developed a new GPCR antibody technology platform for the discovery of therapeutic antibodies against GPCR and other challenging targets.

Our RenMice platforms are competitive and validated through external licenses. As of June 30, 2023, we reached license and trial collaboration agreements with 20 well-known multinational pharmaceutical companies and leading pharmaceutical companies such as Merck Healthcare KGaA, Johnson & Johnson (“**Janssen**”), Xencor, BeiGene and Innovent, all of which are independent third parties of us. As of June 30, 2023, the licensees have initiated 42 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.

The independently self-developed key technology of RenMab platform has been granted a Chinese patent in 2023. For details, please refer to the announcement dated July 11, 2023.

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 Renlite platform.

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.

RenTCRm Platform

RenTCRm platform (the “**RenTCRm 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 RenTCRm 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 RenTCRm 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.

GPCR Platform

GPCR platform (the “**GPCR Platform**”) is developed based on RenMice. GPCR (G protein-coupled receptor) is the most abundant membrane protein in the human genome. Its primary function is to transmit extracellular information into the cell, causing various cellular responses. Many GPCR and transmembrane proteins are potential drug targets. However, they have small extracellular domains and are not soluble, which makes it difficult to obtain antibodies by traditional methods. Our GPCR antibody discovery platform can address these difficulties. The platform immunizes antigens with native conformation and enhanced immunogenicity by DNA immunization and other methods. In addition, by utilizing target knock-out RenMice (RenMice KO), the platform generates fully human antibodies with great diversity to increase the screening success rate.

We are dedicated to enhancing our assets by leveraging our leading in-house research and development capabilities, which spans from early drug discovery to clinical development. As of June 30, 2023, our R&D team has discovered and/or developed our current pipeline of 10 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 June 30, 2023, the Company had approximately 500 research and development personnel engaged in drug development as well as preclinical research services. For the six months ended June 30, 2022 and 2023, our R&D expenses were RMB327.8 million and RMB248.0 million, respectively. The R&D expenses on the Core Products was RMB37.9 million for the six months ended June 30, 2023, accounting for approximately 15.3% 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 assets 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.

PROPOSED ISSUE OF A SHARES

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 and held the extraordinary general meeting on April 20, 2023 to approve the related resolutions. The Company has submitted the application materials in respect of the proposed issue of A Shares and has received a letter of acceptance issued by the Shanghai Stock Exchange in respect of the application for the proposed issue of A Shares. The issue of A Shares will be subject to approvals by the China Securities Regulatory Commission and the Shanghai Stock Exchange. On June 20, 2023, the Company received a letter of acceptance issued by the Shanghai Stock Exchange in respect of the Company’s application for the proposed issue of A Shares. For details, please refer to the announcements dated March 6, 2023, March 15, 2023 and June 20, 2023 and circular dated March 31, 2023.

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 June 30, 2023, our quality management department consists of approximately 42 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 June 30, 2023, the Group had approximately 1,000 suppliers, of which more than 900 were from China. As of June 30, 2023, 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 assets 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 six months ended June 30, 2023, the expenses for CROs and CDMOs attributable to the research and development of our Core Products were RMB31.04 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 June 30, 2023, we had 271 registered trademarks, 122 registered patents and 4 software copyrights, and filed 329 patent applications in 20 countries or regions. We also have 8 issued patents and 30 filed patent applications in relation to our Core Products.

FUTURE AND PROSPECTS

In the first half of 2023, in light of the changes in the macroeconomic environment and the severe challenges in the biopharmaceutical industry, we focused on adjusting our Company's development and continued to optimize our operational efficiency. We are pleased to see that the Company's sales revenue, sales returns, and contracted orders all achieved faster growth, especially overseas sales revenue and orders maintained more significant growth. After the Company's various restructuring initiatives came into effect, we realized a significant narrowing of losses. In the next two to three years, the Company will continue to adhere to the strategic goal of "open source and cut costs", rapid growth in sales revenue of all business lines, while ensuring sufficient investment in research and development in order to consolidate the competitive advantage of the core business, and at the same time, continue to improve operational efficiency and control expenses, it is expected that the Company's losses will continue to narrow rapidly in 2024, and is expected to achieve profitability in 2025.

Starting from the second half of 2022, based on prudent assessment of the changes in the biopharmaceutical industry and the Company's resource capacity, we have adjusted the R&D strategy of our clinical/pre-clinical drug pipeline, and pushed forward the R&D progress of our pipeline molecules by entering into more external collaborations, which is showing good results so far. Many of our molecules, such as YH001, YH002, YH005, YH008, have achieved good results after entering into external licenses/transfers. And the rights and interests of the products retained by the Company have been appreciated. In the future, we will continue to adhere to the strategy of joint development/authorization of transfer/transfer of development, insist on developing a small number of promising drug molecules on our own, focusing on pre-clinical or early clinical stage research and development, and then achieve external transfer of the research and development before it reaches the mid- to late-stage clinical stage, and relying on the resources of our partners to advance the late-stage clinical and commercialization.

In the third quarter of 2023, we will complete our three-year Project Integrum, and we will have constructed 400,000 to 500,000 libraries of fully human sequences targeting 1,000+ potential drug targets. Outside transfers of antibody sequence molecules have shown strong growth in 2023, and we are confident that the rapid growth trend will continue in the coming years. Along with more outward transfers, milestone revenues from transferred molecules are expected to grow over the next two years, in addition to down payment revenues, which will be an important support for the Company's future sales revenue growth.

Considering the environment and challenges of the biotechnology industry both at home and abroad, we will strengthen our strategy of continuous development of overseas markets. On the one hand, we will maintain the technological superiority of the products and services we provide by increasing R&D investment in business lines such as animal models and pre-clinical CRO services, in order to win the trust of our customers. On the other hand, we will explore more overseas customers by expanding our overseas sales team. We will expand the scale of overseas R&D and production facilities to provide localized services close to the market for customers. Under the complex international situation and changing industry environment, the Company will continue to make efforts to realize the rapid growth of overseas sales revenue, so as to drive the rapid growth of the Company's overall sales revenue and maintain a high level of gross profit.

The Company's vision is to "become a global headstream of new drugs", and we firmly believe that the Company is moving forward towards this goal. In the face of the increasingly complex and challenging external environment, the Company can only work harder and more diligently to deliver excellent performance.

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.

	For the six months ended June 30,	
	2023 <i>RMB'000</i> (unaudited)	2022 <i>RMB'000</i> (unaudited)
REVENUE	326,836	229,131
Cost of sales	(91,472)	(62,161)
Gross profit	235,364	166,970
Other gains and losses, net	20,960	38,381
Net change in fair value of biological assets	942	10,233
Selling and marketing expenses	(29,506)	(24,241)
General and administrative expenses	(117,532)	(107,625)
Research and development expenses	(247,970)	(327,819)
Loss before taxation	(189,389)	(272,593)
LOSS FOR THE PERIOD	(189,809)	(272,593)
OTHER COMPREHENSIVE INCOME FOR THE PERIOD (AFTER TAX)	(289)	357
TOTAL COMPREHENSIVE INCOME FOR THE PERIOD	(190,098)	(272,236)

Revenue

For the six months ended June 30, 2023, all our revenue was generated from services and products 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:

	Six months ended June 30, 2023 (Unaudited)		Six months ended June 30, 2022 (Unaudited)	
	<i>RMB'000</i>	%	<i>RMB'000</i>	%
Gene editing	33,429	10.2	29,252	12.8
Pre-clinical pharmacology and efficacy evaluation	89,541	27.4	65,416	28.5
Animal models selling	115,219	35.3	72,858	31.8
Antibody development	88,245	27.0	61,345	26.8
Others	402	0.1	260	0.1
Total revenue	326,836	100.0	229,131	100.0

Revenue increased by 42.6% from RMB229.1 million for the six months ended June 30, 2022 to RMB326.8 million for the six months ended June 30, 2023, 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

Cost of sales increased by 47.1% from RMB62.2 million for the six months ended June 30, 2022 to RMB91.5 million for the six months ended June 30, 2023, 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 41.0% from RMB167.0 million for the six months ended June 30, 2022 to RMB235.4 million for the six months ended June 30, 2023. 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 decreased from 72.9% for the six months ended June 30, 2022 to 72.0% for the six months ended June 30, 2023. The decrease was primarily because pre-clinical pharmacology and drug efficacy evaluation business gross margin stabilized with the growth of revenue, recovering to a normal level from a high level last year, which causes the decrease of gross profit margin in the Reporting Period.

Other Gains and Losses, Net

For the six months ended June 30, 2023, the total other gains and losses, net were approximately RMB21.0 million, representing an decrease of 45.3% as compared with approximately RMB38.4 million in the corresponding period last year.

Other gains and losses, net, consist of net loss on disposal of property, plant and equipment, change in fair value of financial assets at FVTPL, interest in an associate, interest in a subsidiary, 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 loss and others. The decrease in total other gains and losses, net was mainly due to gain on disposal of interest in an associate decreased from RMB24.1 million in the six months ended June 30, 2023 to nil in the corresponding period last year.

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 from a gain of RMB10.2 million for the six months ended June 30, 2022 to a gain of RMB0.9 million for the six months ended June 30, 2023, primarily due to the change of the number of humanized mice in stock during the six months ended June 30, 2023 as compared to the corresponding period last year. The stock level of humanized mice decreased approximately 5,000 heads in the six months ended June 30, 2023, while we recorded an increase of approximately 7,700 heads in the number of humanized mice in the six months ended June 30, 2022. 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 six months ended June 30, 2023, our selling and marketing expenses were approximately RMB29.5 million, representing an increase of 21.9% as compared with RMB24.2 million for the six months ended June 30, 2022. 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 9.2% from RMB107.6 million for the six months ended June 30, 2022 to RMB117.5 million for the six months ended June 30, 2023, primarily due to our increased service charge and consulting fees in connection with A Shares listing process and our increased depreciation and amortization expenses.

Research and Development Expenses

Our research and development expenses decreased by 24.3% from RMB327.8 million for the six months ended June 30, 2022 to RMB248.0 million for the six months ended June 30, 2023, because of our decreased staff costs as a result of our decreasing number of research and development employees, and decreased direct material costs due to our control R&D expenditures strategy since the second half of 2022.

Liquidity and Capital Resources

Our 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 June 30, 2023, our cash at bank and on hand totaled RMB551.1 million, as compared to RMB626.6 million as at December 31, 2022. The decrease was mainly as a result of our negative cash flows in operating activities which in line with net loss from business operation and negative cash flows in investing activities as result of capital expenditures in Reporting Period.

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

	For the six months ended June 30,	
	2023	2022
	RMB'000	RMB'000
	(unaudited)	(unaudited)
Tax paid	–	–
Net cash used in operating activities	(17,569)	(111,159)
Net cash used in investing activities	(90,011)	(42,969)
Net cash generated from financing activities	21,511	11,960
Net decrease in cash and cash equivalents	(86,069)	(142,168)
Effects of foreign exchange rate changes	9,946	7,551
Cash and cash equivalents at January 1	610,882	466,445
Cash and cash equivalents at the end of the period	534,759	331,828

Finance Costs

For the six months ended June 30, 2023, finance costs were RMB46.7 million, representing an increase of 145.8% from RMB19.0 million for the six months ended June 30, 2022, primarily due to the increase in interest on lease liabilities and long-term payables.

Bank and Other Loans and Gearing Ratio

As at June 30, 2023, the Group's outstanding loans were approximately RMB234.8 million (December 31, 2022: RMB178.8 million). As of December 31, 2022, short-term bank loans include loans from Bank of Nanjing, Bank of Shanghai and Bank of Communications respectively, with a term of one year and an annual interest rate of 3.65% to 4.8%, and at the same time, the Company provided a joint and several guarantee for the short-term loan of approximately RMB43.9 million from Bank of Nanjing, which was borrowed by a subsidiary of the Company, Biocytogen Jiangsu Co., Ltd. (百奧賽圖江蘇基因生物技術有限公司). As of June 30, 2023, short-term loans include loans from Bank of Nanjing, Bank of Communications, Minsheng Bank and Bank of Hangzhou respectively, with a term of one year and an annual interest rate of 3.55% to 3.70%, and at the same time, the Company provided a joint and several guarantee for the short-term loan of approximately RMB59.9 million from Bank of Nanjing, which is a subsidiary of the Company, Biocytogen Jiangsu Co., Ltd. (百奧賽圖江蘇基因生物技術有限公司). Other loans were from Beijing Daxing Development Finance Leasing Co., Ltd. (北京大興發展融資租賃有限公司) 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 annual interest rate of 6.0%.

The Group monitored its capital sufficiency using gearing ratio. As at June 30, 2023, 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 1.82 (December 31, 2022: 1.43).

Net Current Assets

The Group's net current assets, as at June 30, 2023 were approximately RMB197.0 million, while net current assets of approximately RMB313.3 million as at December 31, 2022.

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. 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 six months ended June 30, 2023, our total capital expenditure amounted to approximately RMB85.0 million, primarily including investment in facility and office building, and purchase of scientific equipment (December 31, 2022: RMB410.6 million).

Contingent Liabilities

As of June 30, 2023, the Group did not have any significant contingent liabilities (December 31, 2022: nil).

Charge on Assets

During the second half of 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%.

For proposed guarantee for back credit facilities stated in the circular dated March 31, 2023, the guarantee did not occur during the Reporting Period.

Save as disclosed above, as of June 30, 2023, the Group did not pledge any group assets.

Significant Investments

As of June 30, 2023, we did not hold any significant investments.

Material Acquisitions and Disposals

For the six months ended June 30, 2023, we did not conduct any other material acquisitions and disposals.

Events after Reporting Period

Save as disclosed in this announcement, the Company is not aware of any material subsequent events from June 30, 2023 to the Latest Practicable Date.

Employees and Remuneration Policies

As of June 30, 2023, we had approximately 1,313 employees in total (December 31, 2022: 1,348), including 810 employees in Beijing, 336 employees in Jiangsu, and 167 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 provide 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 June 30, 2023.

CORPORATE GOVERNANCE AND OTHER INFORMATION

Interim Dividend

The Board does not recommend the payment of interim dividend for the six months ended June 30, 2023 to the Shareholders (six months ended June 30, 2022: Nil).

Compliance with the CG Code

The Company has committed to achieving high standards of corporate governance with a view to safeguarding the interests of the Shareholders.

The Company has adopted the principles and code provisions as set out in the CG Code to the Listing Rules. The Board is of the view that the Company has complied with all applicable code provisions of the CG Code during the Reporting Period, 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 and consider splitting the roles of chairman of the Board and the chief executive officer of the Company at a time when it is appropriate by taking into account the circumstances of the Group as a whole.

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.

Specific enquiries have been made to all Directors and the Supervisors, and they have confirmed that they have complied with our Company's code of conduct regarding Directors' and Supervisors' securities transactions during the six months ended June 30, 2023.

The Company's employees, who are likely to be in possession of unpublished inside information of the Company, are also subject to the Model Code. No incident of non-compliance with the Model Code by the employees was noted by the Company during the Reporting Period.

Purchase, Sale or Redemption of Listed Securities of the Company

During the six months ended June 30, 2023, neither the Company nor any of its subsidiaries had purchased, sold or redeemed any of the Company's listed securities.

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 RMB436.3 million) after the deduction of underwriting fees, and related expenses in connection with the exercise of the Global Offering.

As of June 30, 2023, the Group had used (i) approximately HK\$166.2 million for funding further clinical research and development of our Core Products; (ii) approximately HK\$69.1 million for funding antibody drug discovery and development in connection with Project Integrum; (iii) approximately HK\$41.4 million for payment of expenses incurred by the pre-clinical and clinical development of other asset products; and (iv) approximately HK\$26.7 million for the working capital and other general corporate purposes. For details of the breakdown of the use of proceeds, please refer to the 2023 interim report of the Company to be published in due course.

The Company intends to use proceeds that had not been utilized as of June 30, 2023 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 31 December 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 (chairperson), Mr. Hua Fengmao, Dr. Yu Changyuan and Mr. Wei Yiliang, with terms of reference in compliance with Rule 3.21 of the Listing Rules.

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, including the review of the unaudited condensed consolidated interim financial results of the Group for the six months ended June 30, 2023. The Audit Committee considers that the interim financial results for the six months ended June 30, 2023 are in compliance with the relevant accounting standards, rules and regulations, and appropriate disclosures have been duly made.

Auditor

The Company’s independent auditor, KPMG, Certified Public Accounts, has reviewed the interim financial information in accordance with the Hong Kong Standard on Review Engagements 2410, “*Review of Interim Financial Information Performed by the Independent Auditor of the Entity*” issued by the Hong Kong Institute of Certified Public Accountants.

FURTHER ANNOUNCEMENTS

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

The interim report containing all the information required by Appendix 16 to the Listing Rules will be despatched to the Shareholders and published on the websites of the Stock Exchange and the Company in due course, respectively.

DEFINITION

“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
“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

“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
“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
“Board” or “Board of Directors”	the board of directors of the Company
“BsAb”	bispecific antibody, an antibody that binds specifically to two antigens or epitopes simultaneously
“BsADC”	bispecific ADC, attaching small molecule anticancer drugs or another therapeutic agents to an antibody with two antigens or epitopes simultaneously
“CAR-NK”	Chimeric Antigen Receptor Natural Killer cells, a new type of immunotherapy that modifies natural killer (NK) cells, which are part of the body’s immune system, to enhance their ability to recognize and destroy cancer cells
“CD40”	Cluster of Differentiation 40, a costimulatory protein found on antigen-presenting cells, essential in mediating immune and inflammatory responses
“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
“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” or “the Company”	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)
“Core Products”	YH001 and YH003, the designated “core products” as defined under Chapter 18A of the Listing Rules
“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
“CTLA-4”	a protein receptor expressed constitutively on T cells that functions as an immune checkpoint and downregulates immune responses
“Director(s)”	the director(s) of the Company
“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
“FDA”	Food and Drug Administration
“FIH”	first-in-human
“FVTPL”	fair value through profit or loss
“GeneQuantum”	GeneQuantum Healthcare (Suzhou) Co., Ltd. (啟德醫藥科技(蘇州)有限公司), an innovative high-tech enterprise dedicated to the development of new high-end biological drugs in China
“Global Offering”	the global offering of the Company’s H Shares on the Stock Exchange
“GMP”	Good Manufacture Practices
“GPCR”	G protein-coupled receptor, the most abundant membrane protein in the human genome. Its primary function is to transmit extracellular information into the cell, causing various cellular responses
“Group,” “our Group,” “we” or “us”	our Company and our subsidiaries

“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
“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
“ <i>in situ</i> ”	in the normal location (site of origin) and has not invaded neighboring tissue or gone elsewhere in the body
“ <i>in vitro</i> ”	a category of study conditions which are performed with microorganisms, cells, or biological molecules outside their normal biological context
“ <i>in vivo</i> ”	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
“Latest Practicable Date”	August 25, 2023
“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
“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)
“mRNA-LNP”	messenger RNA (mRNA) encapsulated in lipid nanoparticles (LNP), the technology is used in the development of mRNA vaccines
“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
“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
“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
“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
“Project Integrum”	Project Integrum (千鼠萬抗) launched in March 2020, a large-scale <i>in vivo</i> antibody discovery program

“Prospectus”	the prospectus published by the Company on August 19, 2022 in relation to the Global Offering
“RC118”	YH005 ADC
“R&D”	research and development
“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 <i>in vivo</i> pairing of human heavy and light chains for the development of fully human antibodies with high affinity, low immunogenicity, and favorable
“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 six-months period from January 1, 2023 to June 30, 2023
“RMB” or “Renminbi”	Renminbi Yuan, the lawful currency of China
“RP2D”	recommended Phase II dose
“SFO”	Securities and Futures Ordinance (Chapter 571 of the Laws of Hong Kong), as amended from time to time
“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)
“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
“TGA”	The Therapeutic Goods Administration, the medicine and therapeutic regulatory agency of the Australian Government
“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
“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” and “YH016”	YH015 and YH016 are two antibody molecules developed using our RenMice platform, which are intended for the treatment of solid tumor and immune diseases

“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 Yuele
*Chairman of the Board, Chief Executive Officer and
Executive Director*

Hong Kong, August 28, 2023

As at the date of this announcement, the Board comprises Dr. Shen Yuele 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.