

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



## 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, 2024

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, 2024 (the “**Reporting Period**”), together with comparative figures for the same period of 2023.

#### FINANCIAL HIGHLIGHTS

	Six months ended June 30, 2024 RMB'000 (Unaudited)	Six months ended June 30, 2023 RMB'000 (Unaudited)	Period-to- period change %
Revenue	410,499	326,836	25.6
Gross profit	305,493	235,364	29.8
Loss before taxation	(47,077)	(189,389)	-75.1
Loss for the period	(50,673)	(189,809)	-73.3
Loss for the period attributable to equity shareholders of the Company	(50,673)	(189,808)	-73.3
Total comprehensive income for the period	(50,901)	(190,098)	-73.2
Loss per share basic and diluted (RMB)	(0.13)	(0.48)	-75.0
Net cash generated from/(used in) operating activities	29,608	(17,569)	N/A

\* Certain amounts and percentage figures included in this announcement have been subject to rounding adjustments, or have been rounded to one or two decimal places. Any discrepancies in any tables, charts or elsewhere 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, 2024, as follows:

### CONSOLIDATED STATEMENTS OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME

for the six months ended 30 June 2024 – unaudited  
(Expressed in RMB)

	Notes	Six months ended 30 June	
		2024 RMB'000	2023 RMB'000
<b>Revenue</b>	3	<b>410,499</b>	326,836
Cost of sales		<u>(105,006)</u>	<u>(91,472)</u>
<b>Gross profit</b>		<b>305,493</b>	235,364
Other gains and losses, net	4	<b>9,529</b>	20,960
Net change in fair value of biological assets	5	<b>6,483</b>	942
Selling and marketing expenses		<b>(42,472)</b>	(29,506)
General and administrative expenses		<b>(102,618)</b>	(117,532)
Research and development expenses		<u><b>(161,679)</b></u>	<u>(247,970)</u>
<b>Profit/(loss) from operations</b>		<b>14,736</b>	(137,742)
Finance costs	6(a)	<b>(52,728)</b>	(46,664)
Share of loss of an associate		<u><b>(9,085)</b></u>	<u>(4,983)</u>
<b>Loss before taxation</b>		<b>(47,077)</b>	(189,389)
Income tax	7	<u><b>(3,596)</b></u>	<u>(420)</u>
<b>Loss for the period</b>		<b>(50,673)</b>	(189,809)
<b>Other comprehensive income for the period (after tax):</b>			
– Equity investments at fair value through other comprehensive income – net movement in fair value reserve (non-recycling)		<b>(98)</b>	–
– Exchange differences on translation of financial statements of foreign operations		<u><b>(130)</b></u>	<u>(289)</u>
<b>Other comprehensive income for the period</b>		<b>(228)</b>	(289)
<b>Total comprehensive income for the period</b>		<u><b>(50,901)</b></u>	<u>(190,098)</u>

		<b>Six months ended 30 June</b>	
	<i>Notes</i>	<b>2024</b>	<b>2023</b>
		<b>RMB'000</b>	<b>RMB'000</b>
<b>Loss for the period attributable to:</b>			
Equity shareholders of the Company		(50,673)	(189,808)
Non-controlling interests		—	(1)
		<u>                    </u>	<u>                    </u>
<b>Loss for the period</b>		<b><u>(50,673)</u></b>	<b><u>(189,809)</u></b>
<b>Total comprehensive income for the period attributable to:</b>			
Equity shareholders of the Company		(50,901)	(190,097)
Non-controlling interests		—	(1)
		<u>                    </u>	<u>                    </u>
<b>Total comprehensive income for the period</b>		<b><u>(50,901)</u></b>	<b><u>(190,098)</u></b>
<b>Loss per share</b>			
Basic and diluted (RMB)	8	<b><u>(0.13)</u></b>	<b><u>(0.48)</u></b>

## CONSOLIDATED STATEMENTS OF FINANCIAL POSITION

at 30 June 2024 – unaudited

(Expressed in RMB)

	Notes	At 30 June 2024 RMB'000	At 31 December 2023 RMB'000
<b>Non-current assets</b>			
Property, plant and equipment		1,394,894	1,450,828
Intangible assets		24,442	28,130
Interests in associates		179,290	188,375
Other non-current assets		67,452	59,025
		<u>1,666,078</u>	<u>1,726,358</u>
<b>Current assets</b>			
Inventories		4,635	7,416
Contract costs		43,268	39,333
Biological assets		89,040	81,716
Trade and bills receivables	9	184,627	142,384
Prepayments and other receivables		24,721	26,057
Other financial assets		8,617	8,487
Cash at bank and on hand		411,236	417,657
		<u>766,144</u>	<u>723,050</u>
<b>Current liabilities</b>			
Trade and bills payables	10	117,781	175,234
Contract liabilities		73,198	69,224
Other payables		132,846	128,887
Bank and other loans		223,612	176,835
Lease liabilities		23,077	26,364
Current taxation		2,093	1,072
		<u>572,607</u>	<u>577,616</u>
<b>Net current assets</b>		<u>193,537</u>	<u>145,434</u>
<b>Total assets less current liabilities</b>		<u>1,859,615</u>	<u>1,871,792</u>

	<i>Notes</i>	<b>At 30 June 2024 RMB'000</b>	At 31 December 2023 RMB'000
<b>Non-current liabilities</b>			
Deferred income		85,724	87,071
Lease liabilities		156,693	167,005
Long-term payables		699,685	651,478
Bank and other loans		171,865	173,905
Deferred tax liabilities		1,406	1,897
		<u>1,115,373</u>	<u>1,081,356</u>
<b>NET ASSETS</b>		<u>744,242</u>	<u>790,436</u>
<b>CAPITAL AND RESERVES</b>			
Share capital	<i>11</i>	399,398	399,398
Reserves		340,294	386,488
<b>Total equity attributable to equity shareholders of the Company</b>		<u>739,692</u>	<u>785,886</u>
<b>Non-controlling interests</b>		<u>4,550</u>	<u>4,550</u>
<b>TOTAL EQUITY</b>		<u>744,242</u>	<u>790,436</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**”).

The interim financial report has been prepared in accordance with the same accounting policies adopted in the 2023 annual financial statements, except for the accounting policy changes that are expected to be reflected in the 2024 annual financial statements. Details of these changes in accounting policies are set out in Note 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 2023 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 IFRS Accounting Standards.

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 IFRS Accounting Standards issued by IASB to this interim financial report for the current accounting period:

- Amendments to IAS 1, *Presentation of financial statements: Classification of liabilities as current or non-current* (“**2020 amendments**”)
- Amendments to IAS 1, *Presentation of financial statements: Non-current liabilities with covenants* (“**2022 amendments**”)
- Amendments to IFRS 16, *Leases: Lease liability in a sale and leaseback*
- Amendments to IAS 7, *Statement of cash flows and IFRS 7, Financial instruments: Disclosures – Supplier finance arrangements*

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 IFRS Accounting Standards are discussed below:

***Amendments to IAS 1, Presentation of financial statements (“2020 and 2022 amendments”, or collectively the “IAS 1 amendments”)***

The IAS 1 amendments impact the classification of a liability as current or non-current, and are applied retrospectively as a package.

The 2020 amendments primarily clarify the classification of a liability that can be settled in its own equity instruments. If the terms of a liability could, at the option of the counterparty, result in its settlement by the transfer of the entity’s own equity instruments and that conversion option is accounted for as an equity instrument, these terms do not affect the classification of the liability as current or non-current. Otherwise, the transfer of equity instruments would constitute settlement of the liability and impact classification.

The 2022 amendments specify that conditions with which an entity must comply after the reporting date do not affect the classification of a liability as current or non-current. However, the entity is required to disclose information about non-current liabilities subject to such conditions in a full set of financial statements.

Upon the adoption of the amendments, the group has reassessed the classification of its liabilities as current or non-current and did not identify any reclassification to be made.

***Amendments to IFRS 16, Leases: Lease liability in a sale and leaseback***

The amendments clarify how an entity accounts for a sale and leaseback after the date of the transaction. The amendments require the seller-lessee to apply the general requirements for subsequent accounting of the lease liability in such a way that it does not recognise any gain or loss relating to the right of use it retains. A seller-lessee is required to apply the amendments retrospectively to sale and leaseback transactions entered into after the date of initial application. The amendments do not have a material impact on these financial statements as the group has not entered into any sale and leaseback transactions.

***Amendments to IAS 7, Statement of cash flows and IFRS 7, Financial instruments: Disclosures – Supplier finance arrangements***

The amendments introduce new disclosure requirements to enhance transparency of supplier finance arrangements and their effects on an entity’s liabilities, cash flows and exposure to liquidity risk. Since those disclosures are not required for any interim period presented within the annual reporting period in which the amendments are initially applied, the group has not made additional disclosures in this interim financial report.

### 3 REVENUE AND SEGMENT REPORTING

#### (a) Revenue

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

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

	Six months ended 30 June	
	2024 RMB'000	2023 RMB'000
Gene editing	34,606	33,429
Pre-clinical pharmacology and efficacy evaluation	81,552	89,541
Animal models selling	175,772	115,219
Antibody development	118,200	88,245
Others	369	402
	<u>410,499</u>	<u>326,836</u>

For the six months ended 30 June 2024, one customer had transactions with the Group which exceeded 10% of the Group's revenue, amounting to RMB50,886,000 (For the six months ended 30 June 2023: one customer with RMB50,441,000).

#### (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 30 June 2024						Total RMB'000
	Gene editing RMB'000	Pre-clinical pharmacology and efficacy evaluation RMB'000	Animal models selling RMB'000	Antibody development RMB'000	Innovative drugs development RMB'000	Others RMB'000	
<b>Disaggregated by timing of revenue recognition</b>							
Point in time	34,606	81,552	175,772	118,200	-	369	410,499
<b>Revenue from external customers</b>	34,606	81,552	175,772	118,200	-	369	410,499
Inter-segment revenue	-	-	11,436	-	-	-	11,436
<b>Reportable segment revenue</b>	<b>34,606</b>	<b>81,552</b>	<b>187,208</b>	<b>118,200</b>	<b>-</b>	<b>369</b>	<b>421,935</b>
<b>Reportable segment gross profit</b>	<b>19,339</b>	<b>41,672</b>	<b>138,153</b>	<b>107,376</b>	<b>-</b>	<b>190</b>	<b>306,730</b>

	Six months ended 30 June 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>
<b>Disaggregated by timing of revenue recognition</b>							
Point in time	33,429	89,541	115,219	88,245	–	402	326,836
<b>Revenue from external customers</b>	33,429	89,541	115,219	88,245	–	402	326,836
Inter-segment revenue	–	–	11,231	–	–	–	11,231
<b>Reportable segment revenue</b>	<u>33,429</u>	<u>89,541</u>	<u>126,450</u>	<u>88,245</u>	<u>–</u>	<u>402</u>	<u>338,067</u>
<b>Reportable segment gross profit</b>	<u>14,071</u>	<u>57,363</u>	<u>87,591</u>	<u>76,751</u>	<u>–</u>	<u>402</u>	<u>236,178</u>

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

	Six months ended 30 June	
	2024 <i>RMB'000</i>	2023 <i>RMB'000</i>
Reportable segment gross profit	306,730	236,178
Elimination of inter-segment gross profit	(1,237)	(814)
Consolidated gross profit	<u>305,493</u>	<u>235,364</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 30 June	
	2024 <i>RMB'000</i>	2023 <i>RMB'000</i>
The PRC	116,968	154,187
The United States of America (“USA”)	218,444	116,577
Others	75,087	56,072
	<u>410,499</u>	<u>326,836</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 30 June 2024 <i>RMB'000</i>	As at 31 December 2023 <i>RMB'000</i>
The PRC	1,227,453	1,266,416
USA	191,747	212,542
Others	136	–
	<u>1,419,336</u>	<u>1,478,958</u>

#### 4 OTHER GAINS AND LOSSES, NET

	Six months ended 30 June	
	2024 <i>RMB'000</i>	2023 <i>RMB'000</i>
Net gain on disposal of property, plant and equipment	–	27
Change in fair value of financial assets at fair value through profit or loss (“FVTPL”)	(901)	75
Interest income	3,448	5,504
Government grants	2,333	2,463
Net foreign exchange gain	4,649	12,899
Others	–	(8)
	<u>9,529</u>	<u>20,960</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 30 June 2024, net fair value change consists of (i) negative realised fair value changes of RMB64,820,000 (six months ended 30 June 2023: RMB59,940,000) and (ii) positive unrealised fair value changes of RMB71,303,000 (six months ended 30 June 2023: RMB60,882,000).

#### 6 LOSS BEFORE TAXATION

Loss before taxation is arrived at after charging:

##### (a) Finance costs

	Six months ended 30 June	
	2024 <i>RMB'000</i>	2023 <i>RMB'000</i>
Interest on long-term payables	36,797	36,323
Interest on lease liabilities	7,143	6,233
Interest on bank and other loans	8,788	4,108
	<u>52,728</u>	<u>46,664</u>

(b) **Staff costs**

	Six months ended 30 June	
	2024	2023
	RMB'000	RMB'000
Salaries, wages and other benefits	133,097	167,322
Contributions to defined contribution retirement schemes	14,044	15,457
Equity-settled share-based payment expenses	5,088	12,399
	<u>152,229</u>	<u>195,178</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 30 June	
	2024	2023
	RMB'000	RMB'000
Depreciation charge on property, plant and equipment	81,573	80,640
Amortisation cost of intangible assets	3,888	3,423
Recognition of impairment losses on trade receivables and other receivables	3,795	1,072
Provision for write-down of inventories and contract costs	5,442	1,941
Cost of inventories	50,144	58,311

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

	Six months ended 30 June	
	2024	2023
	RMB'000	RMB'000
<b>Current tax</b>		
Provision for the period	381	420
Withholding tax on royalty income	3,716	–
	<u>3,716</u>	<u>–</u>
<b>Deferred tax</b>		
Origination and reversal of temporary differences	(501)	–
	<u>(501)</u>	<u>–</u>
	<u>3,596</u>	<u>420</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 RMB50,673,000 (six months ended 30 June 2023: RMB189,808,000) and the weighted average of 398,267,000 ordinary shares in issue during the six months ended 30 June 2024 after considering the effect of the shares purchased for share incentive plan (six months ended 30 June 2023: 398,379,000 shares).

### (b) Diluted loss per share

There were no potential dilutive ordinary shares for the six months ended 30 June 2024 and 2023, therefore diluted loss per share for the period were the same as basic loss per share for the respective period.

## 9 TRADE AND BILLS RECEIVABLES

	As at 30 June 2024 RMB'000	As at 31 December 2023 RMB'000
Trade receivables due from		
– third parties	199,366	153,601
– related parties	227	–
Less: loss allowance	<u>(15,384)</u>	<u>(11,396)</u>
	<b>184,209</b>	142,205
 Bills receivable	 <u>418</u>	 <u>179</u>
	<b><u>184,627</u></b>	<b><u>142,384</u></b>

### 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 30 June 2024 RMB'000	As at 31 December 2023 RMB'000
Within 1 year	162,825	125,930
1 to 2 years	19,492	14,174
2 to 3 years	<u>1,892</u>	<u>2,101</u>
	<b><u>184,209</u></b>	<b><u>142,205</u></b>

## 10 TRADE AND BILLS PAYABLES

	As at 30 June 2024 RMB'000	As at 31 December 2023 RMB'000
Trade payables – third parties	91,700	115,113
Bills payable	26,081	60,121
	<u>117,781</u>	<u>175,234</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 30 June 2024 RMB'000	As at 31 December 2023 RMB'000
Within 1 year	96,676	162,128
After 1 year but within 2 years	20,326	12,392
After 2 years but within 3 years	142	303
Over 3 years	637	411
	<u>117,781</u>	<u>175,234</u>

## 11 CAPITAL, RESERVES AND DIVIDENDS

### (a) Dividends

No dividends have been declared or paid by the Company during the six months ended 30 June 2024 (during the six months ended 30 June 2023: nil).

### (b) Treasury shares (shares held for share award scheme)

On 17 October 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 7 November 2022 and ended on 7 November 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 30 June 2024, the outstanding shares held by the Trustee for 2022 Share Award Scheme was 1,048,000 (2023: 1,148,000) at a total cost (including related transaction costs) of RMB 23,635,000 (2023: RMB 27,181,000).

A total of 165,856 shares were unlocked and transferred to employees upon achieving the service period conditions during the six months ended 30 June 2024 (2023: Nil).

## MANAGEMENT DISCUSSION AND ANALYSIS

### I. Business Review

#### Overview

Founded in 2009, we are a global biotechnology company that drives the research and development of novel antibody-based drugs and pre-clinical research services. Founded on gene editing technology, we leverage genetically engineered proprietary RenMice<sup>®</sup> platforms for fully human antibody discovery, and has established a sub-brand, RenBiologics<sup>™</sup>, to explore global partnerships for an off-the-shelf library of more than 400,000 fully human antibody sequences against approximately 1,000 targets for worldwide collaboration. Biocytogen also reached several antibody molecules in clinical stage out-licensing or collaboration, and currently provides a few thousand off-the-shelf animal and cell models under the company's sub-brand, BioMice<sup>™</sup>, along with preclinical pharmacology and gene-editing services for clients worldwide. We headquartered in Beijing and has branches in China (Haimen Jiangsu, Shanghai), USA (Boston, San Francisco), and Germany (Heidelberg).

In 2024, there exist significant uncertainties in the international politics and the global economy, which in particular caused major shocks to the biopharmaceutical industry in China. Although the internal and external environments have brought us many challenges, leveraging our forward-looking strategic layout and timely internal adjustments in 2023, our results in the first half of 2024 maintained a good growth momentum. While operating income grew rapidly, there recorded a dramatic narrowing-down of loss. What is more important, the cash flow from operating activities turned positive for the first time. In the first half of 2024, a number of "broadening sources of income, reducing costs" measures of the previous year delivered tangible fruits. We believe that it is expected to realize profits in the second half of 2024, and we can achieve or approach breakeven for the entire year.

In the first half of 2024, we achieved operating revenue of RMB410.5 million, representing an increase of 25.6% as compared to the same period last year; the net loss was RMB50.7 million, representing a decrease of 73.3% as compared to the same period last year; the net cash inflow generated from operating activities was RMB29.6 million, and the cash flow from operating activities turned positive in an overall manner.

After years of development, now the antibody discovery business has become one of the core drivers of the Company's rapid growth. In the first half of 2024, the antibody discovery business achieved a revenue of RMB118.2 million, representing an increase of 33.9% as compared to the same period last year, accounting for 28.8% of the Company's total operating revenue. As of 30 June, 2024, we have approximately 150 therapeutic antibody and multiple clinical asset co-development/out-licensing/transfer agreements, and RenMice<sup>®</sup> licensing projects have been established, including several partnerships with multinational pharmaceutical companies (MNCs). Among them, approximately 50 new contracts were signed in the first half of 2024, representing an increase of approximately 230% as compared to the same period last year.

Leveraging on the strong gene editing technologies platform and design team, we have established a comprehensive range of gene-editing animal/cell models and continuously launched highly competitive cutting-edge products in the industry. In the first half of 2024, the animal models selling business continued to maintain high growth, achieving a revenue of RMB175.8 million, representing an increase of 52.6% compared to the same period last year.

Based on the established and mature global network system, especially equipped with advanced laboratories and high-standard animal facilities from Boston, USA operation facilities, on the one hand, it enables us to communicate more efficiently with clients, which in turn provides timely and accurate responses and services, on the other hand, it allows us to understand the world's cutting-edge industry development trends in advance and optimize and adjust our products and services structure in advance as well. In the first half of 2024, our overseas business continued to maintain a rapid growth momentum, with overseas business achieving operating revenue of RMB293.5 million, representing an increase of 70.0% as compared to the same period last year, which accounted for 71.5% of the total operating revenue.

In 2024, the Company continuously focuses on improving its operational capacity. On the one hand, the Company's large-scale R&D investment has ended, and the phased works of the "Project Integrum" plan were completed in the third quarter of 2023, entering a phase of reaping rewards; we will not conduct the research and development of drug pipeline by our own but cooperate with partners to advance the same through licensing or transfer. On the other hand, the Company implemented a series of measures in 2023 to enhance operational efficiency and reduce operational cost. For the first half of 2024, the Company's R&D expenses were RMB161.7 million, representing a significant decrease of 34.8%; general and administrative expenses were RMB102.6 million, representing a decrease of 12.7% as compared to the same period last year.

Our drug development business includes (i) antibody development business that we utilize our own antibody discovery platforms RenMice and Project Integrum to form more than 400,000 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 pre-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 other drug companies to obtain the upfront fee, the milestones payment and royalties, 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 services provided to multinational companies and domestic biotechnology companies and evidenced by our drug candidates cooperated with many partners over years. 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 proprietary RenMice<sup>®</sup>-based platforms, 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 stage to form pre-clinical drug molecule assets, then enter into transfer or co-development deals 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. Through a large number of external transfers of antibody molecules at different development stages, we are entitled to receive upfront payments, milestone payments and sales royalties, which are our core business line to maintain revenue growth.

We have initially completed research and development of Project Integrum (千鼠萬抗) at the end of the third quarter of 2023, and have established a huge library of antibody sequences. Based on the highly differentiated antibody library, 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. As of June 30, 2024, we have reached approximately 150 co-development/out-licensing/transfer development deals, including but not limited to Merck Healthcare KgaA, Gilead Sciences, Inc. (“**Gilead**”), Neurocrine Biosciences, Inc. (“**Neurocrine**”), ADC Therapeutics, Radiance Biopharma Inc. (“**Radiance**”), Hansoh Pharma and Nanjing Chia-Tai Tianqing Pharmaceutical Company. Approximately 50 new deals were signed in the first half of 2024. In the first half of 2024, about 20 new authorizations were signed or converted into authorization stage, a significant increase compared with the same period last year.

Our pipeline includes drug candidates targeting novel targets or drug candidates with differentiated efficacy or safety profiles demonstrated in pre-clinical and clinical studies. As of June 30, 2024, six out of our drug candidates are with out-licensing arrangements with different collaborators. Four of the five clinical-stage candidates have reached transfer authorization, and two of the five preclinical candidates have reached transfer authorization. We continue to cooperate with other pharmaceutical companies to co-develop antibody molecules no matter at clinical stage or at preclinical stage, leveraging the resources of partners to accelerate the drug development process. All of our drug candidates were discovered through our own antibody discovery platforms. 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.

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

Candidate	Target	Combination	Indication	Pre-clinical	IND	Phase I	Phase II	Phase III	Right	Partner
Clinical Stage Drug Candidates	★ YH001	CTLA-4	Solid tumors	Australia					Global	
			Monotherap	Solid tumors	China				Global	
	YH002	OX40	YH003+YH001	Intratumoral Immuno therapy	Investigator Initiated Trials					Syncromune, Inc.
	★ YH003	CD40	PD-1+chemo	Pancreatic ductal adenocarci no ma (first-line/second Line)	Global MRCT				Global	
			PD-1+chemo	Mucosal melanoma	China					
			PD-1+YH001	Solid tumors	Global MRCT					
	YH004	4-1BB	Monotherap	Solid tumors	Australia and China				Global	
	YH008	PD-1 x CD40 BsAb	Monotherap	Solid tumors	China				Outside Greater China	Chipscreen NewWay (Greater China)
Preclinical Drug Candidates	YH012	HER2 x TROP 2 BsADC	Solid tumors	CMC						Radiance
	YH013	EGFR x MET BsADC	Solid tumors	CMC						Doma Biopharmaceutical
	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 used to jointly develop YH001 with TRACON Pharmaceuticals. At present, Tracon has entered the bankruptcy process, and we have negotiated with Tracon and recovered the authorized rights of YH001.
- 2 We granted Syncromune an exclusive license to use YH001, YH002 and YH003 as active compounds to develop intratumoral injection products globally using Syncrovax™ technology, with the right to receive upfront payments, milestone payments and royalties on net sales.
- 3 We can collect licensing fee from RemeGen for licensing YH005.
- 4 We and Chipscreen NewWay, the holding company of Chipscreen Biosciences Co., Ltd., 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.
- 5 We can collect licensing fee from Gene Quantum for PD-L1 mAb, and both parties jointly own the intellectual property rights.
- 6 In respect of YH016 and YH017, we negotiate transfer cooperation with our partners.
- 7 Full term of each abbreviation used:

CD40: Cluster of Differentiation 40

CTLA-4: Cytotoxic T-Lymphocyte-Associated protein 4

OX40: Also known as TNFRSF4, Tumor Necrosis Factor Receptor Superfamily, member 4

4-1BB: Also known as TNFRSF9, Tumor Necrosis Factor Receptor Superfamily, member 9

PD-1: Programmed Death-1

PD-L1: Programmed Death-1 ligand 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 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 external monetization or internal development. Project Integrum is our key R&D project, we have completed most of the work on Project Integrum by the third quarter of 2023. As of June 30, 2024, Project Integrum is progressing well, and we have established a sub-brand, RenBiologics™, to explore global partnerships for an off-the-shelf library of more than 400,000 fully human antibody sequences against approximately 1,000 targets for worldwide collaboration. 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 proprietary RenMice®-based platforms, we plan to continue to introduce innovative drug-ready molecules, such as bis-antibodies, nano-antibodies, TCRm antibodies and GPCR 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 1-2 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, 2024, we have reached approximately 150 co-development/out-licensing/transfer development deals, including but not limited to Merck Healthcare KgaA, Gilead, Neurocrine, ADC Therapeutics, Radiance, Hansoh Pharma and Nanjing Chia-Tai Tianqing Pharmaceutical Company. Approximately 50 new deals were signed in the six months ended June 30, 2024. In the first half of 2024, about 20 new authorizations were signed or converted into authorization stage, a significant increase compared with the same period last year.

## 1.2 SELF-DEVELOPED PRODUCTS

### 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 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, 2024, this study has been completed. YH001 was well tolerated up to 4.0mg/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 6.0mg/kg dose levels and showed promising antitumor activity in some types of cancers.

#### ***YH001 – Collaboration with Tracon***

We reached an agreement with Tracon Pharmaceuticals (the “**Tracon**”) in the USA to explore indications such as sarcoma and other indications in October 2021. 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.

Study on YH001/KN035SAR101 is a Phase I/II clinical trial sponsored by Tracon expected to enroll 176 patients at multiple cancer centers in the USA.

According to the latest news, Tracon has entered bankruptcy proceeding and is unable to continue the clinical development of YH001. We have negotiated with Tracon and reclaimed the licensing of YH001 in accordance with the authorization agreement entered into by both parties.

In future, 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.

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

### ***YH003 – a humanized IgG2 agonistic monoclonal antibody targeting CD40***

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

We initiated the R&D 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.

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.

We received the IND approval for the Phase II MRCT from the USA 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 USA, mainland China, Australia, New Zealand, and Taiwan. The first patient was dosed in Australia in December 2021.

As of June 30, 2024, 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.

In the first line: according to RECIST v1.1, 43 out of 47 patients underwent at least 1 evaluable post-treatment tumour assessment, and an unconfirmed objective response rate (ORR) was observed in 12 patients (27.9%), of which, 1 patient (2.3%) was evaluated as complete response (CR), 11 patients (25.6%) were evaluated as partial response (PR), 23 patients (53.5%) were evaluated as stable disease (SD), the objective response rate (ORR) was 27.9%, the disease control rate (DCR) was 81.4%, and the median overall survival (mOS) was 12.12 months.

In the second line and above: according to RECIST v1.1, 40 out of 45 patients underwent at least one evaluable post-treatment tumour assessment, 4 patients (10%) were observed an unconfirmed objective response rate (ORR), 4 patients (10%) were assessed as partial response (PR), 10 patients (25%) were assessed as stable disease (SD), the objective response rate (ORR) was 10%, the disease control rate (DCR) was 35%, and the median overall survival (mOS) was 7.23 months.

The study results showed sound safety and tolerability of YH003 in combination with toripalimab and albumin-bound paclitaxel plus gemcitabine in the first or second-line treatment of patients with pancreatic ductal adenocarcinoma.

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-bound paclitaxel in the first-line treatment of patients with unresectable/metastatic mucosal melanoma.

As of June 30, 2024, a total of 20 patients were enrolled and received treatment with YH003 in combination with pembrolizumab and albumin-bound paclitaxel, and underwent at least one evaluable post-treatment tumour assessment. An unconfirmed objective response rate (ORR) was observed in 7 patients (35.0%). All of the 7 patients (35.0%) were evaluated as partial response (PR). 7 patients (35.0%) were evaluated as having stable disease (SD), the objective response rate (ORR) was 35.0%, and the disease control rate (DCR) was 70.0%. The median overall survival (mOS) has not been reached (12m-OS 69.5%), and the median progression-free survival (mPFS) is 4.11 months.

The results of the Phase II study show that YH003 in combination with pembrolizumab and albumin-bound paclitaxel has a sound safety profile, with  $\geq$  Grade 3 TEAEs occurring in 5 out of 20 subjects. During the Reporting Period, a total of 4 cases of SAE were reported, including 1 death case which was unrelated to the drug.

Study YH003005 is a phase I study of YH003 in combination with pembrolizumab 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 22, 2024, a total of 15 patients were enrolled and received treatment with YH003 in combination with pembrolizumab and YH001.

### ***YH003 – Collaboration with Syncromune***

The Company has entered into collaboration with Syncromune, Inc. (“**Syncromune**”), a clinical-stage USA biopharmaceutical company, to jointly develop and commercialize an intratumoral immunotherapy based on Syncrovax™ technology, a next-generation personalized oncology therapy, on YH003, please refer to “YH002 – Collaboration with Syncromune” for details.



## **WE MAY NOT BE ABLE TO ULTIMATELY DEVELOP AND MARKET YH003 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 12.0mg/kg in sequential dose increments. 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 3.0mg/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 3.0mg/kg dose group DLT, the results of this dose-escalation study showed that YH002 monotherapy was well tolerated at dose levels up to 2.0mg/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%.

#### ***YH002 – Collaboration with Syncromune***

In 2022, we entered into a license agreement with Syncromune. 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. 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 an upfront fee and Eucure (Beijing) Biopharma Co., Ltd. (“**Eucure**”) is entitled to receive potential milestone fees. On July 1, 2024, Syncromune announced that the U.S. Food and Drug Administration (FDA) has granted Fast Track designation for SYNC-T SV-102 therapy, which is a lead candidate for the treatment of patients with metastatic castrate-resistant prostate cancer (mCRPC).



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

***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 USA 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, 2024, 17 subjects were enrolled and received 0.01mg/kg (n=1), 0.03mg/kg (n=1), 0.1mg/kg (n=3), 0.3mg/kg (n=3), 1.0mg/kg (n=3), 3.0mg/kg (n=3) and 6.0mg/kg (n=3),s iv q3W. To date, YH004 monotherapy is safe and well tolerated up to 3.0mg/kg dose levels.

**WE MAY NOT BE ABLE TO ULTIMATELY DEVELOP AND MARKET YH004 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 USA 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 YH005 SUCCESSFULLY.**

***YH008 – Collaboration with Chipscreen Biosciences***

On February 27, 2023, Eucure 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 reserves YH008’s global rights outside Greater China. Under the agreement, Chipscreen NewWay will pay Eucure 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, 2024, Eucure 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 NXY001 (YH008) in subjects with advanced tumors. The study is currently in progress and patient enrollment for the Phase I study has begun on January 5, 2024.

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

***YH012 – fully human anti-HER2/TROP2 bispecific antibody drug conjugate***

YH012 is a first-in-class fully human anti-HER2/TROP2 bispecific antibody drug conjugate (“**BsADC**”) for therapeutic product development, manufacturing and commercialization for all human indications which is developed by using our RenLite platform.

HER2 and TROP2 are two TAAs that have been found to be commonly expressed and co-expressed by multiple tumor types, including breast, gastric, colorectal, bladder, pancreatic, and non-small-cell lung cancer.

Based on fully human anti-HER2/TROP2 bispecific antibody, we entered into an exclusive option and license agreement with Radiance in January 2024. Under the terms of the agreement, upon the option exercised, we will be entitled to receive option fee, licensing fee, development and commercialization milestone payments, as well as single-digit royalties on net sales. In addition, we have the right to collect the sharing of sublicensing fee if any between Radiance and third party.

***YH013 – fully human anti-EGFR/MET bispecific antibody drug conjugate***

YH013 is a first-in-class fully human anti-EGFR/MET bispecific antibody drug conjugate BsADC for therapeutic product development, manufacturing and commercialization for all human indications which is developed using our RenLite platform.

EGFR and MET are two tumor-associated antigens (“TAAs”) that have been found to be commonly expressed and co-expressed by multiple tumor types, including lung, colorectal, stomach, liver and pancreatic cancers.

Based on fully human anti-EGFR/MET bispecific antibody, we entered into an exclusive option and license agreement with Doma Biopharmaceutical (Suzhou) Co., Ltd (“Doma”) in 2023. Under the terms of the agreement, we are entitled to receive upfront fee, development and commercialization milestone payments, as well as single-digit royalties on net sales. In addition, we have the right to collect the sharing of sublicensing fee if any between Doma and third party.

**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.**

## **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 lines are important business segments 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 of our financial conditions.

In the face of the challenging market environment at home and abroad, the Company focuses its resources on markets and business lines with the potential for high growth. In the business line of pre-clinical CRO services such as animal model selling, the Company continuously expands the categories of animal models. 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, USA test site, in the hope of better serving overseas pharmaceutical customers and leveraging the proportion of overseas sales. Since 2023, the Company has further expanded the Boston, USA facility to triple its original size, which has officially opened in August 2023. The Company achieved significant sales growth in the Reporting Period through the measures.

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 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 included more than 3,300 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 provide disease animal models and *in vivo* pharmacology services to biotechnology and large-scale pharmaceutical company clients worldwide.

In the business line of R&D and sales of innovative animal models, the Company has been 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 ensured 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 animal model 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 was 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 evaluation of the *in vivo* 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 animal models would generally not be applied directly towards product candidates 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 animal models, 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 we 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 of 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 avoiding radiation damage to mice.

## **2.2 Pre-clinical Pharmacology and Efficacy Evaluation**

Our pharmacology team, which is based in China and the USA, has built expertise in testing novel therapeutics such as mAbs, ADCs, BsAbs and BsADCs, 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 4,500 drug evaluation projects for approximately 650 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 a complete biology therapeutic strategy to evaluate the efficacy of different types of human therapeutic molecules (monoclonal antibodies, bi-specific antibodies, ADCs, vaccines, etc.) against the therapeutic targets of interest. Furthermore, tumor cell implantation through different routes including orthotopic injection delivers favorite translatable data to support clinical studies. All these models cover broad immune-therapeutic areas and greatly increase translation from pre-clinical research to clinical studies for drug development.

Besides the tumor models, *in vivo* pharmacology services have also developed several translatable immune and autoimmune 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 of 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 favorable 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 provide very predictive data to support drug candidate evaluation and may guide the design of clinical studies.

### **2.3 Gene Editing**

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

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

#### ***Our Gene Editing Technology***

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 4,900 customized gene editing projects for our clients and self-developed approximately 3,300 gene edited animal and gene edited cell model products.



## ***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.

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

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 platforms, 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.

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, 2024, we reached license and trial collaboration agreements with dozens of well-known multinational pharmaceutical companies and leading pharmaceutical companies such as Merck Healthcare KGaA, Johnson & Johnson, Xencor, BeiGene and Innovent, all of which are independent third parties of us. The licensing of the RenMice technology platforms will allow us to receive upfront fees, milestone fees and royalty. In March 2023, the Company entered into the license agreement with Janssen Biotech, Inc., 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 platforms has been granted a Chinese patent and an USA patent in 2023. For details, please refer to the announcements dated July 11, 2023 and December 5, 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.

The independently self-developed key technology of RenLite platform has been granted an USA patent in 2024. For details, please refer to the announcement dated June 21, 2024.

### *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 nano-antibody 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 (CDR3) 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.

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, 2024, the Company had approximately 291 R&D personnel engaged in Project Integrum as well as preclinical research services. For the six months ended June 30, 2023 and June 30, 2024, our R&D expenses were RMB248.0 million and RMB161.7 million, respectively. The R&D expenses on the Core Products was RMB17.2 million for the six months ended June 30, 2024, accounting for approximately 11% of the R&D expenses during the same period.

## **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. The Company has established a sales system covering Asia-Pacific, North America and Europe. On the one hand, the Company continues to consolidate the leading edge of its domestic business and maintains steady and healthy growth; on the other hand, it continues to expand its overseas markets and maintains rapid growth in overseas sales revenue.

In terms of market strategy, we continue to actively develop overseas markets to drive 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 USA 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.

Since 2022, the Company has optimized and upgraded its North American and European sales network. 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, USA and officially put it into operation, which is able to provide timely response service for customers on the west coast of the USA. In August 2023, the Company has relocated to the newly leased laboratory and animal house in Boston, USA, 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 development 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, 2024 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' ground-breaking 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. 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.

### **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 suppliers, conduct and support the research and development and clinical trials of our assets products, whether the drug assets are in the development phase of our own initiative or after we have reached cooperation with partners. 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 “Suppliers” 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. On January 5, 2024, the Company submitted the response to the enquiries from the Shanghai Stock Exchange. For details, please refer to the announcements dated March 6, 2023, March 15, 2023, June 20, 2023 and January 5, 2024 and the 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, R&D, 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, 2024, our quality management department consists of approximately 37 employees. Our quality management team members have rich experience in quality management and successful drug filings to the USA 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. The due diligence results 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 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, 2024, the Group had approximately 2,100 suppliers, of which more than 2,000 were from China. As of June 30, 2024, 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 R&D and clinical trials of our assets products, whether the drug assets are in the development phase of our own initiative or after we have reached cooperation with partners. 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. 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, 2024, the expenses for CROs and CDMOs attributable to the R&D of our Core Products were RMB15.5 million. We select CROs and CDMOs based on various factors, such as academic qualifications, industry reputation, 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, 2024, we had 286 registered trademarks, 163 registered patents and 4 software copyrights, and filed 462 patent applications in 27 countries or regions. We also have 11 issued patents and 28 filed patent applications in relation to our Core Products.

## **FUTURE AND PROSPECTS**

In 2024, influenced by various factors such as the slowdown in economic growth and geopolitical situations, the global economy is still full of challenges and uncertainties. However, the biopharmaceutical industry is still in the process of continuous development and technological innovation, especially with the growing demand for the development of innovative drugs such as bispecific antibody, ADC, and nanobodies, which brings more opportunities for our development. In the first half of 2024, our performance maintained a sound growth momentum. While operating income grew rapidly, we recorded a dramatic narrowing-down of loss. What is more important, the cash flow from operating activities turned positive for the first time. In the second half of 2024, we will continue to stay steadfast to the “broadening sources of income, reducing costs” strategic goal to ensure sufficient R&D investment to consolidate the competitive advantage of our core business, improve our quality compliance standards, while controlling expenses and continuously improving operational efficiency, and strive to achieve or approach breakeven by 2024.

We will continue to focus on the two core business segments of preclinical products and services and antibody development, maintain continuous R&D investment, build a high-tech moat, and introduce the Company’s globally leading innovative products and services into the market. On the one hand, we will focus on developing various innovative animal models that cover more disease areas to maintain our leading position in the global market of high-end animal model, and based on it to gain more inbound marketing for our preclinical services; on the other hand, based on self-developed fully human antibody mouse Renmice platform, we will further enrich the fully human antibody sequences shelf-ready library with an emphasis on the development of fully human bispecific antibodies, ADC, fully human nanobodies, TCR-like antibodies, and GPCR antibodies.

We will further improve our global network system, optimise the structure of overseas team staff, improve the services of overseas teams, strengthen close ties with overseas customers, especially large multinational pharmaceutical companies, and deepen cooperation areas. Especially relying on our newly established R&D service facility in Boston, U.S., we will build a higher-level localized service team to provide high-quality and efficient responses and services for overseas customers to earn their trust.

We will continue to uphold world-class quality compliance standards and further improve the globally unified quality management system. We will continue to adhere to strict, scientific, normative, and unified standard operating procedures. With the support of an up-to-dated, high standard, and stringent laboratory animal management system, we will adhere to quality control standards for microbiological and genetic backgrounds that surpass international standards, ensure the authenticity and accuracy of experimental data, and provide high-quality products and services to our customers.



## 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.

	<b>Six months ended June 30, 2024 (unaudited) RMB'000</b>	<b>Six months ended June 30, 2023 (unaudited) RMB'000</b>
<b>Revenue</b>	<b>410,499</b>	326,836
Cost of sales	<b>(105,006)</b>	(91,472)
Gross profit	<b>305,493</b>	235,364
Other gains and losses, net	<b>9,529</b>	20,960
Net change in fair value of biological assets	<b>6,483</b>	942
Selling and marketing expenses	<b>(42,472)</b>	(29,506)
General and administrative expenses	<b>(102,618)</b>	(117,532)
Research and development expenses	<b>(161,679)</b>	(247,970)
Loss before taxation	<b>(47,077)</b>	(189,389)
<b>Loss for the period</b>	<b>(50,673)</b>	(189,809)
<b>Other comprehensive income for the period (after tax)</b>	<b>(228)</b>	(289)
<b>Total comprehensive income for the period</b>	<b><u>(50,901)</u></b>	<b><u>(190,098)</u></b>

## Revenue

For six months ended June 30, 2024, all our revenue was generated from services related to our pre-clinical research services (which include gene editing, pre-clinical pharmacology and efficacy evaluation and animal models selling) and antibody development business. The following table sets forth a breakdown of our revenue for the periods indicated:

	Six months ended June 30, 2024 (Unaudited)		Six months ended June 30, 2023 (Unaudited)	
	<i>RMB'000</i>	%	<i>RMB'000</i>	%
<b>Revenue</b>				
Gene editing	<b>34,606</b>	<b>8.4</b>	33,429	10.2
Pre-clinical pharmacology and efficacy evaluation	<b>81,552</b>	<b>19.9</b>	89,541	27.4
Animal models selling	<b>175,772</b>	<b>42.8</b>	115,219	35.3
Antibody development	<b>118,200</b>	<b>28.8</b>	88,245	27.0
Others	<b>369</b>	<b>0.1</b>	402	0.1
<b>Total revenue</b>	<b><u>410,499</u></b>	<b><u>100.0</u></b>	<b><u>326,836</u></b>	<b><u>100.0</u></b>

Revenue increased by 25.6% from approximately RMB326.8 million for the six months ended June 30, 2023 to approximately RMB410.5 million for the six months ended June 30, 2024. The increase was mainly driven by the increase of revenue from animal models selling and antibody development.

## Cost of Sales

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

Cost of sales increased by 14.8% from approximately RMB91.5 million for the six months ended June 30, 2023 to approximately RMB105.0 million for the six months ended June 30, 2024, 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 29.8% from approximately RMB235.4 million for the six months ended June 30, 2023 to approximately RMB305.5 million for the six months ended June 30, 2024. The increase in the gross profit was mainly attributable to the increase in revenue from animal models selling and antibody development. Gross profit margin is calculated as gross profit divided by revenue. The gross profit margin increased from 72.0% for the six months ended June 30, 2023 to 74.4% for the six months ended June 30, 2024. The increase was primarily due to higher sales volume and gross profit margin in animal models selling and the growth revenue and a higher gross profit margin in antibody development.

## Other Gains and Losses, Net

Other gains and losses, net, consist of net gain/(loss) on disposal of property, plant and equipment, change in fair value of financial assets at FVTPL, interest income, government grants (including amortization of deferred income), gain on repayment in advance of long-term payables, net realised losses on derivative financial instruments, net foreign exchange gain and others.

For six months ended June 30, 2024, the total other gains and losses, net were approximately RMB9.5 million, representing a decrease of 54.8% as compared with approximately RMB21.0 million in the corresponding period last year. The decrease in total other gains and losses, net was mainly due to the decrease in interest income and net foreign exchange gain.

### **Net Change in Fair Value of Biological Assets**

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

Our net change in fair value of biological assets increased by 622.2% from approximately RMB0.9 million for the six months ended June 30, 2023 to approximately RMB6.5 million for the six months ended June 30, 2024, primarily due to the change of the number of humanized mice in stock during the six months ended June 30, 2024 as compared to the corresponding period last year. The stock level of humanized mice increased approximately 10,000 heads in the six months ended June 30, 2024, while we recorded a decrease of approximately 5,000 heads in the number of humanized mice in the six months ended June 30, 2023. 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, 2024, our selling and marketing expenses were approximately RMB42.5 million, representing an increase of 44.1% as compared with approximately RMB29.5 million for the six months ended June 30, 2023. 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 decreased by 12.7% from approximately RMB117.5 million for the six months ended June 30, 2023 to approximately RMB102.6 million for the six months ended June 30, 2024, primarily because of our decreased staff costs as a result of our decreasing number of functional employees, and decreased service charge and consulting fees, office expenses and related sundry fees and others due to our a number of “broadening sources of income, reducing costs” strategy in the first half of 2024.

## **Research and Development Expenses**

Our research and development expenses decreased by 34.8% from approximately RMB248.0 million for the six months ended June 30, 2023 to approximately RMB161.7 million for the six months ended June 30, 2024, because of our decreased staff costs as a result of our decreasing number of research and development employees, and decreased direct material costs and Commission service fee due to our continuing control R&D expenditures strategy and the Phased works of the ‘Project Integrum’ plan were completed in the third quarter of 2023.

## **Liquidity and Capital Resources**

The Group monitored and maintained a level of cash and cash equivalents deemed adequate to finance our operations and mitigate the effects of fluctuations in cash flows. During the Reporting Period, we relied on liability finance 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, 2024, our cash at bank and on hand totalling approximately RMB411.2 million, as compared to approximately RMB417.7 million as at December 31, 2023. The slight decrease was mainly combined effect of our positive cash flows in operating activities while negative cash flows in investing activities and financing activities in the Reporting Period.

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

	<b>Six months ended June 30, 2024 RMB’000</b>	Six months ended June 30, 2023 RMB’000
Tax paid	<b>(3,076)</b>	–
Net cash generated from/(used in) operating activities	<b>29,608</b>	(17,569)
Net cash used in investing activities	<b>(31,964)</b>	(90,011)
Net cash (used in)/generated from financing activities	<b>(13,465)</b>	21,511
Net decrease in cash and cash equivalents	<b>(15,821)</b>	(86,069)
Effects of foreign exchange rate changes	<b>2,066</b>	9,946
Cash and cash equivalents at January 1	<b>399,607</b>	610,882
Cash and cash equivalents at the end of the period	<b>385,852</b>	534,759

### **Finance Costs**

For the six months ended June 30, 2024, finance costs were approximately RMB52.7 million, representing an increase by 12.8% from approximately RMB46.7 million for the six months ended June 30, 2023, primarily due to increase in interest on bank and other loans.

### **Bank and other Loans and Gearing Ratio**

As at June 30, 2024, the Group’s outstanding loans were approximately RMB395.5 million (June 30, 2023: RMB234.8 million). As of December 31, 2023, our Bank loans included (i) short-term bank loans with terms of no more than one year and with annual interest rates ranging from 2.5% to 3.7%; (ii) a five-year bank loan with an annual interest rate of 6%, which was secured by mortgages of the property of Biocytogen Daxing and guaranteed by the Company; and (iii) others loans were from Beijing Daxing Development Finance Leasing Co., Ltd. (hereinafter referred to as “**Daxing Development**”) under a sale and leaseback agreements which was considered as a mortgage loan in substance, and such loans will be paid in the next five years with an effective annual interest rate of 5.94%. As of June 30, 2024, the Group’s outstanding loans included (i) short-term loans with annual interest rates ranging from 3.0% to 3.65%, (ii) the five-year bank loan which began from 2023, and (iii) other loans which began from 2022 and will be paid in the next five years.

The Group monitored its capital sufficiency using gearing ratio. As at June 30, 2024, 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 2.27 (December 31, 2023: 2.10).

### **Net Current Assets**

The Group’s net current assets, as at June 30, 2024 were approximately RMB193.5 million, while net current assets of approximately RMB145.4 million as at December 31, 2023.

## **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. We currently do not have a foreign currency hedging policy. However, the management of the Company monitors foreign exchange exposure and will consider hedging significant foreign currency exposure should the need arise.

## **Capital Expenditure**

For the six months ended June 30, 2024, our total capital expenditure amounted to approximately RMB37.1 million, primarily including investment in facility and office building, and purchase of scientific equipment. (December 31, 2023: RMB79.8 million)

## **Contingent Liabilities**

As of June 30, 2024, the Group did not have any significant contingent liabilities. (December 31, 2023: nil)

## **Charge on Assets**

In July 2022, the Group signed sale and leaseback agreements with Daxing Development to sell and lease back certain machinery and equipment to Daxing Development. The rent will be paid in installments within the next five years. It is considered as a mortgage loan, and the aggregated carrying net book value of the machinery and equipment was RMB36.0 million as at June 30, 2024.

In October 2023, the Group mortgaged the plant and buildings of Biocytogen Daxing for the long-term bank loan, and the aggregated carrying net book value of the plants and buildings was RMB253.6 million as at June 30, 2024.

Save as disclosed above, as at June 30, 2024, the Group did not pledge any group assets.

## **Significant Investments**

As of June 30, 2024, we did not hold any significant investments.

## **Material Acquisitions and Disposals**

For the six months ended June 30, 2024, we did not conduct any other material acquisitions or disposals of subsidiaries, associates and joint ventures.

## **Events after Reporting Period**

Save as disclosed above, the Company is not aware of any material subsequent events after June 30, 2024 and up to the Latest Practicable Date.

## **Employees and Remuneration Policies**

As of June 30, 2024, we had 1,040 employees in total (December 31, 2023: 1,066), including 666 employees in Beijing, 268 employees in Jiangsu Province, and 106 employees in other regions of China and overseas.

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

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

### **Future Plans for Material Investments and Capital Asset**

Save as disclosed in this announcement, we had not authorized any plan for the material investments or acquisition of capital asset as of June 30, 2024.

## **CORPORATE GOVERNANCE AND OTHER INFORMATION**

### **Interim Dividend**

The Board does not recommend the payment of interim dividend for the six months ended June 30, 2024 to the Shareholders (six months ended June 30, 2023: Nil).

### **Compliance with the CG Code**

The Company has been 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 CG Code has been applicable to the Company during the Reporting Period.

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 Yuelei. In view of Dr. Shen Yuelei's experience, personal profile and his roles in our Company, Dr. Shen Yuelei 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.



Specific enquiries have been made to all Directors and Supervisors, and they have confirmed that they have complied with our Company's code of conduct regarding Directors' and Supervisors' securities transactions during the Reporting Period.

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 incidents of non-compliance with the Model Code by the relevant employees of the Company were 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, 2024, 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, 2024, the Group had used (i) approximately HK\$376.0 million for funding further clinical research and development of our Core Products; (ii) approximately HK\$80.6 million for funding antibody drug discovery and development in connection with Project Integrum; (iii) approximately HK\$53.7 million for payment of expenses incurred by the pre-clinical and clinical development of other asset products; and (iv) approximately HK\$26.9 million for the working capital and other general corporate purposes. During the Reporting Period, the Group had used approximately HK\$56.5 million for funding further clinical research and development of our Core Products, which comprises approximately HK\$27.0 million for funding research and development of YH003, and approximately HK\$29.5 million for the funding of the clinical research and development of YH001. As of June 30, 2024, the Group has fully utilized the net proceeds received by the Company from the Global Offering. For further details of the breakdown of the use of proceeds, please refer to the 2024 interim report of the Company to be published and/or made electronically available, in due course.

### **Audit Committee**

The Audit Committee has four members comprising one non-executive Director and three independent non-executive Directors, being Ms. Liang Xiaoyan (chairman), Mr. Hua Fengmao, Dr. Yu Changyuan and Mr. Wei Yiliang, with terms of reference in compliance with Rule 3.21 of the Listing Rules.

The Audit Committee has considered and reviewed the interim report, 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, 2024. The Audit Committee considers that the interim financial results for the six months ended June 30, 2024 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](http://www.hkexnews.hk)) and the Company (<https://www.biocytogen.com.cn>).

The interim report containing all the information required by Appendix D2 to the Listing Rules will be made available for review 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
"Articles" or "Articles of Association"	the articles of association of the Company from time to time
"Audit Committee"	the audit committee of the Board
"Award"	an award of H Shares by the Board to a Selected Employee pursuant to the Scheme Rules
"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
"Biocytogen Daxing"	Biocytogen (Beijing) Biological Engineering Co., Ltd.* (百奧賽圖(北京)生物工程有限公司), a limited liability company established in the PRC on June 25, 2014 and wholly owned by the Company
"Board" or "Board of Directors"	the board of directors of the Company

“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 C1 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”, or “our 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
“CSRC”	the China Securities Regulatory Commission (中國證券監督管理委員會)
“CTLA-4”	a protein receptor expressed constitutively on T cells that functions as an immune checkpoint and downregulates immune responses
“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

“Employee(s)”	any full-time employee (excluding any Excluded Employee) of any member of the Group
“FDA”	Food and Drug Administration
“FIH”	first-in-human
“FVTPL”	fair value through profit or loss
“GCP”	Good Clinical Practice
“Global Offering”	the global offering of the Company’s H Shares on the Stock Exchange
“GMP”	Good Manufacture Practices
“Group,” “our Group,” “we” or “us”	our Company and our subsidiaries
“HCC”	hepatocellular carcinoma
“HK\$” or “HKD”	Hong Kong dollars, the lawful currency of Hong Kong
“Hong Kong” or “HK”	the Hong Kong Special Administrative Region of the PRC
“H Share(s)”	overseas listed foreign share(s) in the share capital of our Company with a nominal value of RMB1.0 each, which is/are subscribed for and traded in HK dollars and listed on the Hong Kong Stock Exchange
“H Shareholder(s)”	holder(s) of H Share(s)
“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
“in situ”	in the normal location (site of origin) and has not invaded neighboring tissue or gone elsewhere in the body

“in vitro”	a category of study conditions which are performed with microorganisms, cells, or biological molecules outside their normal biological context
“ <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
“Listing”	listing of the H Shares on the Main Board of the Hong Kong Stock Exchange
“Listing Rules” or “Hong Kong Listing Rules”	the Rules Governing the Listing of Securities on the Hong Kong Stock Exchange, as amended, supplemented or otherwise modified from time to time
“mAb” or “monoclonal antibody”	antibodies that are made by identical immune cells which are all clones belonging to a unique parent cell
“Main Board”	the stock exchange (excluding the option market) operated by the Hong Kong Stock Exchange which is independent from and operated in parallel with GEM of the Hong Kong Stock Exchange
“Model Code”	the Model Code for Securities Transactions by Directors of Listed Issuers set out in Appendix C3 to the Listing Rules
“MRCT(s)”	multi-regional clinical trial(s)
“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
“Nomination Committee”	the nomination committee of the Board
“NRDL”	National Reimbursement Drug List
“NSCLC”	non-small-cell lung carcinoma
“Over-allotment Option”	the over-allotment option granted by the Company to the international underwriters in connection with the Global Offering
“OX40”	a receptor expressed on activated T cells which gives costimulatory signals to promote T cell division and survival

“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
“PIs”	principal investigators
“Project Integrum”	Project Integrum (千鼠萬抗) launched in March 2020, a large-scale <i>in vivo</i> antibody discovery program
“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
“Remuneration and Evaluation Committee”	the remuneration and evaluation committee of the Board
“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 developability
“RenNano”	a platform uses RenNano mice to produce heavy chain antibodies on the basis of RenMab mice with further modification on antibody heavy chain constant region
“Reporting Period”	the six months from January 1, 2024 to June 30, 2024
“RMB” or “Renminbi”	Renminbi Yuan, the lawful currency of China
“RP2D”	recommended Phase II dose
“Scheme” or “Share Award Scheme (H Shares)”	the “Employees’ Share Award Scheme” of the Company constituted by the Scheme Rules
“Scheme Rules”	the rules relating to the Scheme, as approved and adopted by the Board on the Adoption Date in its present form or as amended from time to time in accordance with the provisions hereof
“SDIC”	State Development & Investment Group Co., Ltd.
“SDIC Ningbo”	State Development & Investment Corporation (SDIC) VC Fund (Ningbo) of Technology Transfer and Commercialization (Limited Partnership)
“SDIC Shanghai”	State Development & Investment Corporation (SDIC) VC Fund (Shanghai) of Technology Transfer and Commercialization (Limited Partnership)
“SDIC Shenzhen”	State Development & Investment Corporation (SDIC) Gaoxin (Shenzhen) VC Fund (Limited Partnership)
“Selected Employee(s)”	Employee(s) selected by the Board pursuant to the Board’s absolute discretion to, from time to time, select any Employee for participation in the Scheme
“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
“Strategy Development Committee”	the strategy development committee of the Board
“SUPCE”	Size-unlimited and Precise Chromosome Engineering System, a genetic manipulation technique
“Supervisor(s)”	member(s) of the supervisory committee of the Company
“Supervisory Committee”	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
“Trust”	the trust constituted by the Trust Deed
“Trustee”	CMB Wing Lung (Trustee) Limited, or other trustee corporations to be appointed by the Company for the administration of the Scheme from time to time
“Trust Deed”	a trust deed to be entered into between the Company and the Trustee (as restated, supplemented and amended from time to time) in respect of the appointment of the Trustee for the administration of the Scheme
“Trust Share(s)”	any H Share purchased by the Trustee on the market out of cash arranged to be paid by the Company out of the Company’s funds to the Trustee, together with in each case any scrip Shares or bonus Shares referable to those H Shares, for the purposes of settlement of the Awarded Shares
“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”	YH015 is a fully human IgG1 antagonistic monoclonal antibody targeting CD40
“YH016” and “YH017”	YH016 and YH017 are two novel molecules developed using our RenMice platform, which are intended for the treatment of solid tumor and immune diseases respectively
“4-1BB”	a receptor expressed on activated T cells and NK cells which gives costimulatory signals to promote T cell division and survival, activate cytotoxic effects and help form memory T cells

\* *For identification purpose only*

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

Hong Kong, August 28, 2024

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