# Jiangsu Recbio Technology Co., Ltd.
# 江蘇瑞科生物技術股份有限公司

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

**(Stock Code: 2179)**

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

The Board is pleased to announce the unaudited condensed consolidated results of the Group for the six months ended June 30, 2023, together with the unaudited comparative figures for the six months ended June 30, 2022.

## BUSINESS HIGHLIGHTS

During the Reporting Period, we rapidly promoted product development and achieved the following milestones and progress in pipeline development and business operations:

### *REC603-Recombinant HPV 9-valent Vaccine*

HPV 9-valent vaccines can provide protection against 90% of cervical cancer and 90% of the anal and genital warts, being widely considered as the most effective vaccines against HPV-related diseases. Currently, no domestic HPV 9-valent vaccine has been approved for marketing in China.

- We are in the process of conducting phase III clinical trial in China. The phase III clinical trial in China consists of three parts, i.e., the primary efficacy trial, the immuno-bridging trial in younger-age groups, and the immunogenicity comparative trial with Gardasil®9, with a multi-center, randomized, blinded and placebo controlled design and with a total size of 16,050 subjects.

- Follow-up on the subjects of REC603's primary efficacy trial is being conducted in accordance with the clinical protocol. We have completed the 18th month follow-up visit and are conducting the 24th month follow-up visit observation. We plan to take the pathological endpoint for interim analysis and submit BLA application after meeting the conditions.

- The Company has completed the three doses vaccination in the two studies of REC603 immuno-bridging trial in the younger-age groups and the immunogenicity comparative trial with Gardasil®9.

- The "Technical Guidelines for the Clinical Trials of Human Papillomavirus Vaccines (for Trial Implementation)" issued by the Center for Drug Evaluation of NMPA clearly states that "randomized, double-blind, placebo-controlled design is currently the best strategy to confirm the protective efficacy of first-generation vaccines." Our Phase III clinical protocol for the 9-valent HPV vaccine strictly follows the guidelines of the regulatory authorities; We have the largest HPV 9-valent Phase III clinical trial subjects in China and are conducting clinical trials in Henan, Shanxi and Yunnan provinces with high HPV infection rates. Currently, the Company is conducting follow-up visits according to the established protocol and is expected to accelerate the completion of case collection, maintaining the leading domestic position in the clinical development progress.

***REC610 – Novel Adjuvanted Recombinant Shingles Vaccine***

Shingles is an acute infectious skin disease caused by reactivation of latent varicella zoster virus (VZV) in the body. There is no specific medicine for shingles, and vaccine is an effective means of preventing shingles. According to research data on shingles vaccines that have been marketed around the world, the novel adjuvanted vaccine can provide stronger cellular immunity and protective efficacy as compared to live attenuated vaccines.

- The Company has recently received the notice of acceptance (acceptance number: CXSL2300518) issued by NMPA, pursuant to which the clinical trial application for its self-developed novel adjuvanted recombinant shingles vaccine REC610 has been accepted. The Company proposes to adopt a randomized, double-blind, Shingrix® parallel controlled design for conducting the phase I clinical trial with enrolled 180 healthy adult subjects aged 40 and above in Mainland China to evaluate the safety, tolerability of REC610 and have a preliminary assessment of its immunogenicity.

- The Company commenced the first-in-human GSK Shingrix® active controlled clinical trial of REC610 in the Philippines in February 2023. Currently, the clinical trial is being executed smoothly. All subjects have completed 30 days of follow-up studies after two doses of the vaccination, with favorable safety and tolerability profile.

- REC610 is equipped with a novel adjuvant BFA01 independently developed by the Company, which can promote the production of high levels of VZV glycoprotein E (gE)-specific CD4+T cells and antibody. Preclinical studies have shown that REC610 has favorable immunogenicity and can induce high levels of gE specific CD4+T cell responses and IgG antibody, and its immune response is non-inferior to the controlled vaccine Shingrix®.

***ReCOV-Recombinant COVID-19 Vaccine***

ReCOV is a recombinant COVID-19 vaccine being developed by the Company with its technology platforms, including its novel adjuvant, protein engineering and immunological evaluation platforms, and the adjuvant used therein is its self-developed novel adjuvant BFA03. It has a variety of comprehensive advantages, including favorable broad-spectrum of neutralizing antibodies and immune persistence, overall positive safety profile, potential growth in production scale, low production cost, preparation stability, and ability to be stored and transported at room temperature.

- For ReCOV international multi-center Phase III clinical trial, we have completed all subjects enrollment and full vaccination, and is currently under follow-up visit in accordance with the clinical protocol. We will analyze the endpoint of protective efficacy, and submit the application to the PRC regulatory authorities after meeting the conditions.

- We obtained an emergency use authorization (EUA) for ReCOV in Mongolia in March 2023.

**Others**

- We continuously strengthened the construction of independent intellectual property rights for innovative vaccines. Based on the protein engineering platform and mRNA technology platform, we have applied for a total of 15 invention patents related to antigens for recombinant human herpes simplex virus vaccine (HSV), SARS-COV-2 and its variants, and respiratory syncytial virus vaccine (RSV) projects. Based on the novel adjuvant platform, we applied for a total of 16 invention patents in the key raw materials of adjuvants, among which 1 novel adjuvant authorized patent was obtained.

- In April 2023, the Company received the Reply of the Approval on the Registration of Shares Issued by Jiangsu Recbio Technology Co., Ltd. to Target Subscribers from the CSRC. The Reply should be valid for a period of 12 months from the date of approval.

- In May 2023, the Company has been selected as a constituent of the MSCI China Small Cap Index, with effect from the close of market on May 31, 2023.

**We cannot guarantee that we will ultimately develop or market our Core Product or other pipeline products successfully. Shareholders and potential investors of our Company are advised to exercise due care when dealing in the Shares of our Company.**

## FINANCIAL HIGHLIGHTS

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

| | **For the six months ended June 30,** | |
|---|---|---|
| | **2023** | 2022 |
| | ***RMB'000*** | *RMB'000* |
| | **(Unaudited)** | (Unaudited) |
| Other income and gains | **59,929** | 78,593 |
| Loss before tax | **-276,941** | -357,117 |
| Loss for the period | **-276,941** | -357,117 |
| Loss attributable to owners of the parent | **-272,549** | -349,686 |
| Loss per share – Basic and diluted (RMB) | **-0.57** | -0.75 |

## CONSOLIDATED STATEMENTS OF FINANCIAL POSITION

| | As of | |
|---|---|---|
| | **June 30, 2023** | December 31, 2022 |
| | ***RMB'000*** | *RMB'000* |
| | **(Unaudited)** | (Audited) |
| Total non-current assets | **982,659** | 889,687 |
| Total current assets | **1,262,601** | 1,419,920 |
| Total current liabilities | **-316,164** | -328,983 |
| Net current assets | **946,437** | 1,090,937 |
| Total assets less current liabilities | **1,929,096** | 1,980,624 |
| Total non-current liabilities | **-573,823** | -327,546 |
| Total equity | **1,355,273** | 1,653,078 |

## FINANCIAL STATEMENTS AND PRINCIPAL NOTES

## INTERIM CONDENSED CONSOLIDATED STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME

*For the six months ended 30 June 2023*

| | | Six months ended 30 June | |
|---|---|---|---|
| | | **2023** | 2022 |
| | *Notes* | ***RMB'000*** | *RMB'000* |
| | | **(Unaudited)** | (Unaudited) |
| Other income and gains | *5* | **59,929** | 78,593 |
| Other expenses | *6* | **(142)** | - |
| Research and development costs | | **(247,822)** | (354,469) |
| Administrative expenses | | **(78,087)** | (76,669) |
| Selling and distribution expenses | | **(5,439)** | (3,778) |
| Finance costs | *7* | **(5,380)** | (794) |
| LOSS BEFORE TAX | *8* | **(276,941)** | (357,117) |
| Income tax expense | *9* | **-** | - |
| LOSS AND TOTAL COMPREHENSIVE LOSS FOR THE PERIOD | | **(276,941)** | (357,117) |
| Attributable to: | | | |
| Owners of the parent | | **(272,549)** | (349,686) |
| Non-controlling interests | | **(4,392)** | (7,431) |
| | | **(276,941)** | (357,117) |
| Other comprehensive income: | | | |
| Exchange differences on translation of foreign operations | | **3,425** | - |
| Total comprehensive income | | **(273,516)** | (357,117) |
| Attributable to: | | | |
| Owners of the parent | | **(269,124)** | (349,686) |
| Non-controlling interests | | **(4,392)** | (7,431) |
| | | **(273,516)** | (357,117) |
| LOSS PER SHARE ATTRIBUTABLE TO ORDINARY EQUITY HOLDERS OF THE PARENT | | | |
| Basic and diluted (RMB) | *11* | **(0.57)** | (0.75) |

## INTERIM CONDENSED CONSOLIDATED STATEMENT OF FINANCIAL POSITION

*30 June 2023*

| | Notes | **30 June 2023** ***RMB'000*** **(Unaudited)** | 31 December 2022 *RMB'000* (Audited) |
|---|---|---|---|
| NON-CURRENT ASSETS | | | |
| Property, plant and equipment | | **618,253** | 558,710 |
| Other intangible assets | | **43,245** | 33,505 |
| Right-of-use assets | | **64,458** | 72,542 |
| Goodwill | | **9,305** | 9,305 |
| Other non-current assets | | **247,398** | 215,625 |
| Total non-current assets | | **982,659** | 889,687 |
| CURRENT ASSETS | | | |
| Inventories | | **41,990** | 56,160 |
| Prepayments, other receivables and other assets, current | | **121,886** | 38,610 |
| Cash and bank balances | | **1,098,725** | 1,325,150 |
| Total current assets | | **1,262,601** | 1,419,920 |
| CURRENT LIABILITIES | | | |
| Trade payables | *12* | **68,708** | 62,517 |
| Lease liabilities | | **27,119** | 20,361 |
| Interest-bearing bank and other borrowings | | **22,129** | 1,394 |
| Other payables and accruals | | **198,208** | 244,711 |
| Total current liabilities | | **316,164** | 328,983 |
| NET CURRENT ASSETS | | **946,437** | 1,090,937 |
| TOTAL ASSETS LESS CURRENT LIABILITIES | | **1,929,096** | 1,980,624 |
| NON-CURRENT LIABILITIES | | | |
| Interest-bearing bank and other borrowings | | **487,107** | 231,621 |
| Lease liabilities | | **20,407** | 29,251 |
| Deferred income | | **60,779** | 61,144 |
| Deferred tax liabilities | | **5,530** | 5,530 |
| Total non-current liabilities | | **573,823** | 327,546 |
| Net Assets | | **1,355,273** | 1,653,078 |

| | Notes | **30 June 2023** ***RMB'000*** **(Unaudited)** | 31 December 2022 *RMB'000* (Audited) |
|---|---|---|---|
| EQUITY | | | |
| **Equity attributable to owners of the parent** | | | |
| Share capital | | **482,963** | 482,963 |
| Treasury shares | | **(41,201)** | - |
| Reserves | | **926,701** | 1,178,913 |
| Non-controlling interests | | **(13,190)** | (8,798) |
| Total equity | | **1,355,273** | 1,653,078 |

## 1. CORPORATE INFORMATION

Jiangsu Recbio Technology Co., Ltd. is a joint stock company with limited liability incorporated in the People's Republic of China ("PRC"). The registered office of the Company is located at No. 888 Yaocheng Avenue, Medical High-tech District, Taizhou, City, Jiangsu Province, PRC.

During the reporting period, Jiangsu Recbio Technology Co., Ltd. and its subsidiaries (collectively referred to as the "Group") were principally engaged in the research and development of vaccines in the Mainland China.

The Company was listed on the Main Board of the Stock Exchange of Hong Kong Limited (the "Stock Exchange") on 31 March 2022.

## 2. BASIS OF PREPARATION

The interim condensed consolidated financial information for the six months ended 30 June 2023 has been prepared in accordance with International Accounting Standard 34 Interim Financial Reporting ("IAS 34"). The interim condensed consolidated financial information does not include all the information and disclosures required in the annual financial statements, and should be read in conjunction with the Group's annual consolidated financial statements for the year ended 31 December 2022. The Interim Financial Information is presented in Renminbi ("RMB"), and all values are rounded to the nearest thousand (RMB'000) except when otherwise indicated.

## 3. CHANGES IN ACCOUNTING POLICIES

The accounting policies adopted in the preparation of the interim condensed consolidated financial information are consistent with those applied in the preparation of the Group's annual consolidated financial statements for the year ended 31 December 2022, except for the adoption of the following revised International Financial Reporting Standards ("IFRSs") for the first time for the current period's financial information.

| | |
|---|---|
| IFRS 17 | *Insurance Contracts* |
| Amendments to IFRS 17 | *Insurance Contracts* |
| Amendments to IFRS 17 | *Initial Application of IFRS 17 and IFRS 9 – Comparative Information* |
| Amendments to IAS 1 and IFRS Practice Statement 2 | *Disclosure of Accounting Policies* |
| Amendments to IAS 8 | *Definition of Accounting Estimates* |
| Amendments to IAS 12* | *Deferred Tax related to Assets and Liabilities arising from a Single Transaction* |
| Amendments to IAS 12 | *International Tax Reform – Pillar Two Model Rules* |

The adoption of the revised standards had no significant financial effect on the Group's interim condensed consolidated financial information.

* The amendments had no impact on the Group's interim condensed consolidated financial statements.

## 4. OPERATING SEGMENT INFORMATION

### Segment information

For the purposes of resource allocation and performance assessment, the Group's chief executive officer, being the chief operating decision maker, reviews the consolidated results when making decisions about allocating resources and assessing performance of the Group as a whole and hence, the Group has only one reportable segment and no further analysis of this single segment is presented.

### Geographical information

The Group's non-current assets are all located in the PRC, and accordingly, no further related geographical information of non-current assets is presented.

### Information about major customers

No revenue was generated by the Group during the reporting period, and accordingly, no analysis of customers is to be disclosed.

## 5. OTHER INCOME AND GAINS

An analysis of other income and gains is as follows:

| | Six months ended 30 June | |
|---|---|---|
| | **2023** | 2022 |
| | ***RMB'000*** | *RMB'000* |
| | **(Unaudited)** | (Unaudited) |
| Other income | | |
| Government grants related to income* | **4,597** | 1,968 |
| Bank interest income | **24,785** | 7,128 |
| Others | **–** | 67 |
| | **29,382** | 9,163 |
| Other gains | | |
| Gain on fair value changes of financial assets | **23** | 2,553 |
| Foreign exchange gains, net | **30,242** | 66,877 |
| Gain on disposal of items of right-of-use assets and lease liabilities | **265** | – |
| Others | **17** | – |
| | **30,547** | 69,430 |
| | **59,929** | 78,593 |

* The government grants related to income have been received to compensate for the Group's research and development expenditures and business operations.

## 6. OTHER EXPENSES

| | Six months ended 30 June | |
|---|---|---|
| | **2023** | 2022 |
| | ***RMB'000*** | *RMB'000* |
| | **(Unaudited)** | (Unaudited) |
| Donation | **100** | – |
| Loss on disposal of items of property, plant and equipment | **7** | – |
| Others | **35** | – |
| | **142** | – |

## 7. FINANCE COSTS

An analysis of finance costs is as follows:

| | Six months ended 30 June | |
|---|---|---|
| | **2023** | 2022 |
| | ***RMB'000*** | *RMB'000* |
| | **(Unaudited)** | (Unaudited) |
| Interest on bank borrowings | **7,692** | 1,785 |
| Less: Interest capitalized | **3,428** | 1,785 |
| Interest on lease liabilities | **1,116** | 794 |
| | **5,380** | 794 |

## 8. LOSS BEFORE INCOME TAX

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

| | | Six months ended 30 June | |
|---|---|---|---|
| | | **2023** | 2022 |
| | *Notes* | ***RMB'000*** | *RMB'000* |
| | | **(Unaudited)** | (Unaudited) |
| Depreciation of property, plant and equipment* | | **19,201** | 12,765 |
| Depreciation of right-of-use assets* | | **8,824** | 5,387 |
| Amortization of other non-current assets* | | **225** | 161 |
| Amortization of other current assets* | | **1,649** | 1,632 |
| Amortization of other intangible assets* | | **2,050** | – |
| Provision of impairment for inventories | | **4,058** | – |
| Interest on lease liabilities | *7* | **1,116** | 794 |
| Expense relating to short-term leases* | | **1,338** | 2,113 |
| Research and development costs | | **247,822** | 354,469 |
| Loss/(gain) on disposal of items of property, plant and equipment | | **7** | (1) |
| Gain on fair value changes of financial assets | *5* | **(23)** | (2,553) |
| Government grants related to income | *5* | **(4,597)** | (1,968) |
| Foreign exchange differences, net | *5* | **(30,242)** | (66,877) |
| Bank interest income | *5* | **(24,785)** | (7,128) |
| Auditor's remuneration* | | **500** | 500 |
| Listing expense* | | **–** | 9,932 |
| Employee benefit expense* (excluding directors', chief executive's and supervisors' remuneration): | | | |
| Wages and salaries | | **59,707** | 55,363 |
| Share-based payments expense | | **6,347** | 8,860 |
| Pension scheme contributions, social welfare and other welfare | | **6,268** | 4,840 |

The depreciation of property, plant and equipment, depreciation of right-of-use assets, amortization of other non-current assets, amortization of other current assets, amortization of other intangible assets, expense relating to short-term leases, auditor's remuneration, listing expense and employee benefit expense for the reporting period and the six months ended 30 June 2023 and 30 June 2022 are set out in "Selling and distribution expenses", "Administrative expenses" and "Research and development costs" in the interim condensed consolidated statements of profit or loss and other comprehensive income.

## 9. INCOME TAX

Pursuant to the Enterprise Income Tax of the PRC and the respective regulations (the "EIT law"), the basic tax rate of the Group is at a rate of 25% on their respective taxable income.

The Group's PRC entities are in a loss position and have no estimated assessable profits.

Pursuant to the Corporate Income Tax Law of the PRC and the respective regulations (the "CIT Law"), the Company is subject to CIT at a rate of 25% on the taxable income. Beijing ABZYMO obtained its certificate of high-technology enterprise on December 30, 2022 and is entitled to enjoy a preferential tax rate of 15% for three years from 2022 to 2024.

Pursuant to the Inland Revenue Ordinance of Hong Kong, HK Recbio Limited is subject to profits tax at a rate of 8.25% on assessable profits up to HK$2,000,000; and 16.5% on any part of assessable profits over HK$2,000,000.

| | **Six months ended 30 June** | |
|---|---|---|
| | **2023** | 2022 |
| | ***RMB'000*** | *RMB'000* |
| | **(Unaudited)** | (Unaudited) |
| Current income tax | | |
| Charge for the period | **–** | – |
| Deferred income tax | **–** | – |
| Total tax (credit)/charge for the period | **–** | – |

A reconciliation of the tax expense applicable to loss before tax using the statutory rate for the jurisdictions in which the Company and its subsidiaries is domiciled to the tax expense at the effective tax rate, and a reconciliation of the applicable rates (i.e., the statutory tax rates) to the effective tax rates, are as follows:

| | **Six months ended 30 June** | |
|---|---|---|
| | **2023** | 2022 |
| | ***RMB'000*** | *RMB'000* |
| | **(Unaudited)** | (Unaudited) |
| Loss before tax | **(276,941)** | (357,117) |
| Tax at the statutory tax rate (25%) | **(69,235)** | (89,279) |
| Effect of different tax rate of a subsidiary operating in other jurisdictions and tax concession | **6,059** | 6,167 |
| Tax effect of income that is exempt from taxation | **(11)** | – |
| Expenses not deductible for tax | **4,966** | 6,488 |
| Additional deductible allowance for qualified research and development costs | **(53,285)** | (59,967) |
| Tax losses and deductible temporary differences not recognized | **111,506** | 136,591 |
| Tax charge at the Group's effective rate | **–** | – |

Deferred tax assets have not been recognized in respect of these losses and temporary differences as they have arisen in the Group that have been loss-making for some time and it is not considered probable that taxable profits will be available against which the tax losses can be utilized.

## 10. DIVIDEND

No dividends have been paid or declared by the Company during the six months ended 30 June 2023 and 2022.

## 11. LOSS PER SHARE ATTRIBUTABLE TO ORDINARY EQUITY HOLDERS OF THE PARENT

The calculation of the basic loss per share amounts for the period ended 30 June 2023 and 2022, is based on the loss for the periods attributable to ordinary owners of the parent and the weighted average number of ordinary shares assumed to be in issue after taking into account the retrospective adjustments on the assumption that the company conversion into a joint stock company (Company's Capitalization Issue) and the share capital transfer from capital premium had been in effect on 1 January 2021.

The calculations of basic and diluted loss per share are based on:

| | **Six months ended 30 June** | |
|---|---|---|
| | **2023** | 2022 |
| | ***RMB'000*** | *RMB'000* |
| | **(Unaudited)** | (Unaudited) |
| Loss | | |
| Loss attributable to ordinary equity holders of the parent, used in the basic and diluted loss per share calculation (RMB'000) | **(272,549)** | (349,686) |
| Shares | | |
| Weighted average number of ordinary shares in issue during the period used in the basic and diluted loss per share calculation | **482,126,649** | 465,318,599 |
| Loss per share (basic and diluted) (RMB) | **(0.57)** | (0.75) |

## 12. TRADE PAYABLES

An ageing analysis of the trade payable as at 30 June 2023 and 31 December 2022, based on the invoice date, is as follows:

| | **30 June 2023** | 31 December 2022 |
|---|---|---|
| | ***RMB'000*** | *RMB'000* |
| | **(Unaudited)** | (Audited) |
| Within 1 year | **68,636** | 62,507 |
| Over 1 year | **72** | 10 |
| | **68,708** | 62,517 |

## MANAGEMENT DISCUSSION AND ANALYSIS

## BUSINESS REVIEW

### *Overview*

Founded in 2012, we are a vaccine company dedicated to the research, development and commercialization of innovative vaccines, with a high-value innovative vaccine portfolio driven by in-house developed technologies. We primarily focus on the R&D of HPV vaccine candidates. Our vaccine portfolio currently consists of 12 vaccines, including our three strategic products, namely REC603, a recombinant HPV 9-valent vaccine under phase III clinical trial; ReCOV, a recombinant two-component COVID-19 vaccine, which is under marketing application stage in the PRC and has obtained an emergency use authorization (EUA) in Mongolia; and REC610, a novel adjuvanted recombinant shingles vaccine under clinical research stage.

Through years of dedication and focus on this area, we have developed a comprehensive vaccine innovation engine consisting of a novel adjuvant platform, protein engineering platform and immunological evaluation platform. These platforms empower us to continue to discover and develop innovative vaccines that apply advanced technologies in our vaccine candidates. We are one of the few companies that are capable of developing novel adjuvants, benchmarking all of the FDA-approved novel adjuvants to date. Our technology platforms form a "solid trifecta", creating synergies among the design and optimization of antigens, the development and production of adjuvants and the identification of the optimal combinations of antigens and adjuvants. We have also established an IPD System, enabling us to advance the R&D of multiple vaccine candidates simultaneously. Guided by our "OPTI" vaccine development philosophy, we have established a vaccine portfolio consisting of 12 candidates, strategically extending to five of the ten diseases with the greatest burden under the 2019 Global Burden of Diseases assessed by DALYs issued by the WHO and covering disease areas of three of the top five globally bestselling vaccine products in 2020.

We have started to build our manufacturing capabilities at an early stage, aiming at ensuring our vaccine candidates to be smoothly transferred into successful commercial vaccine products. We are constructing our HPV vaccine manufacturing facility in Taizhou, Jiangsu province, the first phase of which has a designed capacity of 20 million doses of HPV 9-valent vaccines per year. In addition, we have completed the construction of our GMP-standard manufacturing facility for ReCOV, a recombinant COVID-19 vaccine, in November 2021, and successfully acquired the production license issued by Jiangsu Medical Products Administration. In April 2022, this manufacturing facility received the European Union (EU) Qualified Person Declaration issued by a Qualified Person (QP), which indicated that the Company's manufacturing facility in Taizhou and its quality management system met the EU GMP standard. This manufacturing facility has a total GFA of approximately 17,000 sq.m., and can also be used for the manufacturing of novel adjuvanted recombinant shingles vaccines.

## *Our Vaccine Pipeline*

Our vaccine portfolio strategically covered six disease areas with significant burden globally, including HPV, COVID-19 infectious disease, shingles, adult TB, flu and HFMD. As of the date of this announcement, our vaccine portfolio consisted of 12 vaccine candidates including, in particular, REC603, a recombinant HPV 9-valent vaccine candidate under phase III clinical trial in China; ReCOV, a recombinant two-component COVID-19 vaccine, which is under marketing application stage in the PRC and has obtained an emergency use authorization (EUA) in Mongolia; and a novel adjuvanted recombinant shingles vaccine under clinical research stage.

The following table summarizes our vaccine pipeline as of the date of this announcement.

| Diseases | Candidates | Type of Vaccine | Adjuvant Systems | Product Rights | Commercial Rights | R&D Status | Future Milestone |
|---|---|---|---|---|---|---|---|
| | | | | | | Pre-clinical / IND Filing / Phase I / Phase II / Phase III / Commercialization | |
| Cervical Cancers & Genital Warts | REC603 | Recombinant HPV 9-valent vaccine ★ | Alum | Self-developed | Global | Phase III | Expected to submit BLA application in 2025 |
| | REC601 | Recombinant HPV bivalent (Types 16/18) vaccine | Alum | Self-developed | Global | Phase I | |
| | REC602 | Recombinant HPV bivalent (Types 6/11) vaccine | Alum | Self-developed | Global | Phase I | |
| | REC604a | 2nd-generation recombinant HPV quadrivalent vaccine | BFA04 | Self-developed | Global | IND Filing | |
| | REC604b | 2nd-generation recombinant HPV 9-valent vaccine | Undisclosed novel adjuvant | Self-developed | Global | Pre-clinical | |
| COVID-19 Infectious Disease | ReCOV | Recombinant COVID-19 vaccine | BFA03 | Co-developed | Global | Commercialization | |
| | R520A | mRNA COVID-19 Vaccine | - | Co-developed | Global | IND Filing | |
| Shingles | REC610 | Recombinant shingles vaccine | BFA01 | Self-developed | Global | Phase I | |
| Adult TB | REC607 | Virus vectored adult TB vaccine | - | License-in | Global | Pre-clinical | |
| | REC606 | Recombinant adult TB vaccine | BFA01 | Self-developed | Global | Pre-clinical | |
| Flu | REC617 | Recombinant influenza quadrivalent vaccine | BFA03 | Self-developed | Global | Pre-clinical | |
| HFMD | REC605 | Recombinant HFMD quadrivalent vaccine | Alum | Self-developed | Global | Pre-clinical | |

★ Core Product

*Notes:*

1. Our Core Product REC603, an HPV 9-valent vaccine, obtained the umbrella IND approval from the NMPA in July 2018. The umbrella IND approval covers all three phases (phase I, II and III) clinical trials of REC603. Based on communications with the CDE of the NMPA, the NMPA has no objection for us to proceed with phase III clinical trial in China directly. Accordingly, the Company did not conduct any phase II clinical trial for REC603.

2. ReCOV, a COVID-19 vaccine, is currently undergoing international multicenter Phase III trials in Russia and Nepal, and is simultaneously undergoing Phase I/II trials for human immune-bridging and sequential booster immunization, as well as investigator-initiated clinical trial (IIT) in China. Currently, the Company has submitted product marketing application to the PRC regulatory authorities on a rolling basis and has obtained an emergency use authorization from Mongolia. ReCOV was designed and developed by the Group jointly with Professor WANG Xiangxi's group at the Institute of Biophysics, Chinese Academy of Science.

3. Novel adjuvanted recombinant shingles vaccine, REC610, is currently undergoing phase I trials in the Philippines and its clinical trial application in China has been accepted. If no adverse opinions or doubts have been received from the CDE of the NMPA within 60 days from the date of acceptance, the Company may conduct clinical trials according to the submitted plan.

4. REC607 was licensed in from Shanghai Public Health Clinical Center, ID Pharma Co., Ltd. and Shanghai Saimo Biotechnology Ltd.

5. All adjuvant systems used in the products under development are self-developed by the Company.

6. R520A is an mRNA COVID-19 vaccine candidate developed by Wuhan Recogen, a joint venture established by us and our business partners for the R&D and commercialization of mRNA vaccines. As of the date of this announcement, the Company owned 55% of the equity interest in Wuhan Recogen, which owns all of the future interests of the Company and Shenzhen Rhegen in relation to all infectious disease vaccine products.

### *HPV Vaccine Pipeline*

HPV is the most common viral pathogen of the reproductive tract. Although HPV infections may clear up within a few months without any intervention, certain types of HPVs can persist and develop into cervical cancer. These high-risk HPV infections are mainly caused by HPV types 16, 18, 31, 33, 45, 52 and 58, which account for approximately 90% of cervical cancer cases globally. It is widely accepted that HPV vaccine can play an important role in eliminating cervical cancer as it can prevent HPV infection on certain high-risk types. In addition, some cancers of the anus, vulva, vagina, and oropharynx and most genital warts can be prevented by HPV vaccines.

*REC603 – Phase III Stage HPV 9-Valent Vaccine – Our Core Product*

REC603, our Core Product, is designed to provide protection against HPV types 6, 11, 16, 18, 31, 33, 45, 52 and 58. It is expected that REC603 will be one of the first of domestic vaccines of its kind to be approved and commercialized in China.

***Summary of Clinical Trial:*** We jointly applied, and obtained the umbrella IND approval for REC603 in July 2018. The umbrella IND approval covers all three phases (phase I, II and III) of clinical trials. In March 2019, we commenced the phase I clinical trial of REC603 in China. We completed phase I clinical trial of REC603 in China in July 2020. Based on communications with the CDE of the NMPA, the NMPA has no objection for us to proceed with phase III clinical trial in China directly. Accordingly, we did not conduct any phase II clinical trial for REC603.

The CDE of the NMPA issued the "Technical Guidelines for the Clinical Trials of Human Papillomavirus Vaccines (for Trial Implementation)" (the "Guidelines") in July 2023, which clearly points out that the randomized, double-blind and placebo-controlled design is still the best strategy to confirm the immunogenicity profile of the first-generation of vaccine for the time being. We are in the process of conducting phase III clinical trial in China. The phase III clinical trial in China consists of three parts, i.e., the primary efficacy trial, the immuno-bridging trial in younger-age groups, and the immunogenicity comparative trial with Gardasil®9, with a multi-center, randomized, blinded and parallel controlled design and with a total size of 16,050 subjects. The Company has completed the three doses vaccination of the two studies of REC603 immuno-bridging trial in younger-age groups and the immunogenicity comparative trial with Gardasil®9 as of the date of this announcement. At the same time, follow-up on the subjects of REC603's primary efficacy trial is being conducted in accordance with the clinical protocol. We have completed the visit of the 18th month and are in the process of conducting the visit and observation of the 24th month. We will carry out an interim analysis by taking pathological endpoints and plan to submit a BLA application to the NMPA in 2025 when conditions are satisfied. Since obtaining the IND approval in China, no material unexpected accidents or adverse changes in relation to REC603 have occurred.

***Advantages of REC603:*** We believe our REC603 has various advantages, including:

*Positive immunogenicity profile.* REC603 demonstrates a positive immunogenicity profile in its phase I clinical trial. In general, we observed a significant increase in terms of NAb GMT level against all of the target HPV types.

*High-yield and stable production of HPV VLPs.* REC603 adopts H. polymorpha expression system. In general, the VLPs from different expression systems are all highly similar to natural HPV capsid in structure and epitope in order to trigger immune response after vaccination, including those being produced by H. polymorpha expression system. H. polymorpha, a methylotrophic yeast species, is able to grow to very high cell density rapidly on simple media and has relatively high optimum growth temperature. Owing to its strong and tunable promoters derived from the methanol utilization pathway, high secretion capacity, and lower glycosylation activity compared to S. cerevisiae, H. polymorpha is suitable for production of recombinant proteins for medical use. With high copies of expression cassettes integrated stably in the genome of H. polymorpha, high-yield and stable expression of HPV VLPs is achieved, making our vaccine candidate more suitable for commercial production.

*Favorable safety profile.* REC603 was safe and well-tolerated as shown in the phase I clinical trial for REC603. There were no statistical differences in terms of incidences of AEs between the vaccine group and the placebo group. Although there is currently no available paper reporting a head-to-head clinical trial comparing domestic HPV vaccines and foreign HPV vaccines, in the clinical trial conducted by Merck Sharp & Dohme for Gardasil 9 in 2009, the rate of adverse event was 86.6% among subjects enrolled in the vaccine cohort, as compared to 53.75% as observed in the phase I clinical trial of REC603.[1] The main adverse reactions were expected fever and inject site pain, and mostly were transient and mild.

*Scalable manufacturing potential.* Our patented technology in HPV VLPs in combination with optimized fermentation strategy and purification process enables us to achieve high and stable yield in bulk production. With well-defined critical process parameters, manufacturing of REC603 can be easily scaled-up to meet the market demand domestically and globally.

***Opportunities and potentials:*** We believe there are significant opportunities for our HPV vaccine candidates, considering the following factors:

*Superiority of HPV 9-valent vaccines.* In general, HPV 9-valent vaccines can provide protection against 90% of cervical cancer and 90% of the anal and genital warts and therefore are the most recommended vaccines for HPV protection. However, to the best knowledge and information of the Company with reference to independent market research, currently there is only one HPV 9-valent vaccine approved in China, and it is expected HPV 9-valent vaccines will account for a larger market share in China after more HPV 9-valent vaccines are approved in China.

1 The above information was derived from multiple clinical trials conducted for different vaccines without the support of controlled, head-to-head clinical studies, and a number of factors (including the different subject enrollment standards adopted in different trials, different population characteristics of subjects, physicians' inoculation skills and experiences, and lifestyle of the subjects) could affect the relevant clinical results and could render cross-trial comparison results less meaningful.

*Significantly underserved HPV 9-valent vaccine market in China.* To the best knowledge and information of the Company with reference to independent market research, even taking into account of the expected growth in vaccination rate of HPV vaccines, there will be 233.9 million females aged 9 to 45 unvaccinated for HPV in 2025, representing a potentially total of 701.7 million doses needed. In addition, the types of HPV serotypes that can infect women can also infect men. Studies have also shown that, males also have similar rates of HPV infection as females. As such, we believe China's HPV vaccine market is, and will continue to be significantly underserved.

*Domestic substitute.* To the best knowledge and information of the Company with reference to independent market research, the first domestic HPV bivalent vaccine accounted for 66.7% of China's HPV bivalent vaccine market in terms of production value in the first year of its launch by virtue of its cost effectiveness, even if it was only approved in 2019 whereas the first imported HPV bivalent vaccine was approved in China in 2016. We believe that considering domestic vaccine products tend to adopt more favorable prices as compared to their global peers, HPV 9-valent vaccines will follow a similar trend in China after being approved. In recent years, the Chinese government has also promulgated policies in favor of domestic HPV vaccine developers. For example, in 2019, the National Health Commission of the People's Republic of China released the Healthy China Action – Cancer Prevention and Control Implementation Plan (2019-2022), stating to accelerate the review and approval process of domestic HPV vaccines and improve the accessibility of HPV vaccines. As one of the few domestic vaccine companies to have phase III stage HPV 9-valent vaccine candidate, we believe we will benefit from such favorable government policies in the future.

*Same age coverage as imported vaccines*. On August 30, 2022, HPV 9-valent vaccine available in the market in China has been expanded for females aged 9 to 45. Our Core Product, REC603, has also initiated phase III clinical trial for females aged 9 to 45 in 2021, indicating a same coverage in terms of age as compared to the current approved vaccines.

*Next-generation HPV vaccines under development.* We are also developing next-generation HPV quadrivalent and 9-valent vaccine candidates with novel adjuvants, which are designed to adopt a two-shot regimen without compromising the efficacy/safety profile of vaccine candidates, and are potentially superior as compared to the commercialized products as they are all adopting three-shot regimen.

Having considered the Company's accumulation of phase III clinical trial sample size domestically in China and its decision to conduct the trial at clinical sites with higher HPV infection rate, it is expected that REC603 will be one of the first domestic vaccines of its kind to be approved and commercialized in China.

**Cautionary Statement required under Rule 18A.08(3) of the Listing Rules: We cannot guarantee that we will ultimately develop or market our Core Product successfully. Shareholders and potential investors of our Company are advised to exercise due care when dealing in the Shares of our Company.**

*REC601 – Phase I Stage HPV Bivalent (Type 16/18) Vaccine*

The bivalent vaccine candidates are designed as HPV protection solutions for people with different affordability and have the potential to be included in the national vaccination regime in China and other jurisdictions. Due to the cost advantage of the HPV bivalent vaccine, it may become the mainstream vaccine for developing countries.

We are developing a bivalent HPV vaccine candidate, namely REC601, targeting HPV types 16 and 18, which are the main cause for a majority of cervical cancer cases. Currently, we have completed data evaluation and analysis on the phase I trial in China. The phase I trial data showed that REC601 has a favorable safety profile and an immunogenicity profile in healthy females aged 9 to 45. There was no vaccination-related grade 4 or higher AEs or SAEs. 30 days after the whole immunization: the positive rates of HPV types 16 and 18 antibodies reached 100.00%, and the negative population before immunization also reached positive conversion after the whole immunization (positive conversion rate was 100.00%). The HPV types 16 and 18 antibody levels also increased significantly: GMT of HPV type 16 antibody increased by 632.99 times and GMT of HPV type 18 antibody increased by 1,194.02 times compared with that before immunization. REC601 adopts a similar technical process line with the recombinant HPV 9-valent vaccine.

*REC602 – Phase I Stage HPV Bivalent (Type 6/11) Vaccine*

We are also developing REC602, a bivalent HPV vaccine candidate targeting HPV 6/11. We have completed the Phase I trial in late 2022. REC602 adopts a similar technical process line with the recombinant HPV 9-valent vaccine.

*REC604a and REC604b – Early-Stage HPV Vaccines Formulated with Novel Adjuvant*

Supported by our strong technology platforms, we are exploring opportunities to develop HPV vaccines formulated with novel adjuvant, namely REC604a and REC604b. Unlike the traditional aluminum adjuvant we are currently using, we are conducting early-stage development of next-generation HPV 9-valent and quadrivalent vaccines formulated with a novel self-developed adjuvant. Based on existing studies, compared to Merck's Gardasil, GSK's AS04-adjuvanted Cervarix has demonstrated strong cross-protection effectiveness with higher titers of neutralizing antibodies in clinical trials, suggesting that novel adjuvants can enhance the immunogenicity of HPV vaccines. As the introduction of novel adjuvant enhances immunogenicity profile of REC604a and REC604b, they are designed to adopt a two-shot regimen. The REC604a is equipped with the novel adjuvanted BFA04 independently developed by the Company. Preclinical studies have shown that the BFA04 adjuvant enhances the neutralizing antibodies by 7.7 times when compared with using an aluminum adjuvant. In an animal study conducted in mice, REC604a with a two-shot dosing has demonstrated its non-inferiority in terms of GMT level and immune persistence of serum neutralizing antibody as compared to Gardasil with a three-shot dosing. As of the date of this announcement, we have obtained the implied license for conducting clinical trials for REC604a in China.

***COVID-19 Vaccines***

Since late 2019, the COVID-19 pandemic had caused a devastating social and economic impact in China and worldwide. COVID-19 has claimed more than 6 million lives reported by WHO Dashboard and is still circulating globally. Safe and effective vaccines are critical to the control of the COVID-19 pandemic. We are currently developing two COVID-19 vaccines.

*ReCOV – COVID-19 Vaccine Candidate under marketing application*

***Summary of Clinical Trial:*** For our recombinant COVID-19 vaccine, ReCOV, we have completed phase I clinical trial in New Zealand, and have completed Phase II clinical studies for basic immunization and sequential booster immunization in the Philippines and the United Arab Emirates. In November 2022, our ReCOV presented positive data from the Phase II clinical studies for basic immunization and sequential booster immunization in the Philippines and Phase II clinical studies for sequential booster immunization in the United Arab Emirates, and ReCOV completed the enrollment of the first batch of subjects for international multi-center Phase III clinical trials. In particular, the Phase II clinical studies for sequential booster immunization in the Philippines have shown that, for subjects who have received vaccination with an inactivated vaccine for basic immunization, our ReCOV sequential booster can induce higher levels of neutralizing antibodies against Omicron variant BA.5, BA.2, BF.7 and BA.2.75 compared with the group administered with Pfizer's mRNA vaccine (with significant statistical differences). Based on the positive data above, we obtained an emergency use authorization (EUA) for ReCOV in Mongolia in March 2023. It became the first novel adjuvanted recombinant subunit COVID-19 vaccine independently developed by China that has been approved overseas. The obtaining of EUA for ReCOV in Mongolia is conducive to the Group in expanding into overseas markets, enhancing our overseas brand awareness, promoting our internationalization strategies and registration in other countries and regions.

***Advantages of ReCOV:*** We believe our ReCOV has the following advantages:

*Good broad-spectrum.* ReCOV uses an optimized antigen, which is an NTD-RBD-foldon trimer, highly expressed by CHO cells, with a novel self-developed adjuvant BFA03. Our ReCOV can rapidly induce neutralizing antibodies and Th1 biased cellular immune responses. ReCOV has induced durable broad cross-neutralizing antibodies against prototype strain and multiple Omicron variants, showing favorable neutralizing effect compared with Pfizer's mRNA vaccines and Sinopharm's inactivated vaccines.

*Good safety profile*. Studies for basic immunization and sequential booster immunization have showed good safety profile of our ReCOV. There is an approximate TEAE rate between adult and elderly subject groups as well as the 20μg and the 40μg groups.

*Significant accessibility advantage.* Our ReCOV boasts fast-growing productivity, independent supply chain, and high preparation stability. Given self-developed adjuvants, high productivity and independent supply chain, the Company need not rely on overseas manufacturer. Applying the disposable culture process for CHO cell, our ReCOV can achieve high yield and rapid expansion of production. It can be stored for at least six months at room temperature with quality unchanged and is expected to be stable for at least 24 months at 2°C – 8°C.

*Platform scalability.* Leveraging our respiratory vaccine technology with novel adjuvant BFA03 and CHO expression system, the Company can quickly develop modified vaccines against variants or upper respiratory combination vaccines against COVID-19 or flu based on the first-generation of vaccine.

*R520A – Phase I mRNA COVID-19 Vaccine*

In August 2021, together with our business partners including Shenzhen Rhegen, we established a joint venture, namely Wuhan Recogen for the R&D and commercialization of mRNA vaccines. As the first step of this collaboration, we are developing R520A, a clinical research stage mRNA COVID-19 vaccine candidate, which specifically targets Omicron variant. R520A adopts a self-developed lyophilization technology. Through this approach, we can effectively sustain the physiochemical properties and bioactivity of mRNA-LNP and achieve long-term storage at 2°C – 8°C. We have been approved by the State Food and Drug Administration of the Philippines for clinical trials. As of the date of this announcement, the product has been approved for clinical trials in the Philippines, New Zealand and Hong Kong, China. The paper published in the international academic journal Cell Discovery (IF:38) with the title of "Lyophilized mRNA-lipid nanoparticle vaccines with long-term stability and high antigenicity against SARS-CoV-2" reported the lyophilized lipid nanoparticle vaccine against different variants of SARS-CoV-2.

***Shingles Vaccine***

*REC610 – Recombinant Shingles Vaccine Candidate under Phase I Clinical Stage*

In December 2022, we obtained a clinical trial approval in the Philippines for novel adjuvanted recombinant shingles vaccine, REC610, and the first batch of subject enrollment was completed in February 2023. This clinical study is a randomized, observer-blinded, GSK Shingrix® active-controlled phase I clinical trial to evaluate the safety and immunogenicity of REC610 in healthy adult subjects aged 40 and above. As of the date of this announcement, the phase I clinical trial in the Philippines has been progressing smoothly, and a follow-up on all subjects has been completed 30 days after they received two doses of vaccine, showing favorable safety profile and tolerability. The application for conducting clinical trials for REC610 in China has been accepted. If no adverse opinions or doubts have been received from the CDE of the NMPA within 60 days from the date of acceptance, the Company may conduct clinical trials according to the submitted plan.

Shingles is an acute infectious skin disease caused by reactivation of latent varicella zoster virus (VZV) in the body. There is no specific medicine for shingles, and vaccine is an effective means of preventing shingles. According to research data on shingles vaccines that have been marketed around the world, the novel adjuvanted vaccine can provide stronger cellular immunity and protective efficacy as compared to live attenuated vaccines. REC610 is equipped with a novel adjuvant BFA01 independently developed by the Company, which can promote the production of high levels of VZV glycoprotein E (gE)-specific CD4+T cells and antibody. Preclinical studies have shown that REC610 has favorable immunogenicity and can induce high levels of gE-specific CD4+T cell responses and IgG antibody, and its immune response is non-inferior to the controlled vaccine Shingrix®.

***TB Vaccine Pipeline***

*REC607 – Early-stage Virus Vectored Adult TB Vaccine Candidate*

We have entered into a technology transfer agreement with Shanghai Public Health Clinical Center, pursuant to which we obtained the know-how and patents with the exclusive global development rights of REC607, a virus vectored adult TB vaccine candidate. This program was recognized as a Major National Science and Technology Project (國家科技重大專項課題) in 2018. We are currently conducting preclinical R&D for our adult vector vaccine.

*REC606 – Early-stage Recombinant Adult TB Vaccine Candidate*

We are also conducting early-stage study with respect to a recombinant adult TB vaccine, namely REC606. Our self-developed REC606 utilized both of the protein engineering platform and new adjuvant technology platform, both of which have the potential to result in better safety profile and immune response.

***Other Disease Areas***

*REC617 – Early-stage Recombinant Influenza Quadrivalent Vaccine Candidate*

We are developing REC617, an early-stage recombinant influenza quadrivalent vaccine and are developing novel adjuvants to enhance tolerability, immunogenicity, length of protection and cross-protection capability.

*REC605 – Early-stage HFMD Quadrivalent Vaccine Candidate*

We are leveraging our protein engineering technology to develop a multi-valent HFMD vaccine, REC605, with increased serotype coverage of EV71, CA16, CA10 and CA6 and enhanced protection.

***Our Technology Platforms***

We have developed three advanced technology platforms for novel adjuvant development, protein engineering and immunological evaluation. These platforms empower us to continue to discover and develop subunit vaccines that apply advancing technologies in our vaccine candidates.

*Novel adjuvant platform*

Adjuvants are substances that are used in conjunction with antigens to assist in antigen presentation and enhance immune responses. Conventionally, only the alum adjuvant was widely used in vaccines for human use. Since the early 21st century, novel adjuvants have been widely applied in the vaccine industry gradually, and created vaccine products that can stimulate higher and broader immune response. At present, there are five novel adjuvants had been applied in FDA-approved vaccines for human use, namely AS01, AS03, AS04, CpG1018, and MF59, the components of which have been in the public domain for over 20 years. Through this platform, we are one of the few companies that have been able to develop adjuvant, benchmarking all of the above-mentioned FDA-approved adjuvants. This capability has enabled us to not rely on any particular adjuvant supplier. In addition, our platform also empowers us to discover and apply new adjuvants in the next-generation vaccine candidates.

*Protein engineering platform*

Our protein engineering platform utilizes a structure-based immunogen design approach to provide antigen optimization solutions for the development of subunit vaccines based on multidisciplinary studies. This platform enables us to rapidly target and prepare pathogen-derived antigens, to define the structural basis of antigenicity, to understand mechanisms of immune protection and to guide rational immunogen design, which are critical steps in our vaccine development. In addition, our protein engineering platform can elicit immune response in different expression systems, including E.coli, H. polymorpha, baculovirus and CHO cell expression systems, among others. With this diversified expression system toolbox, we are able to select and apply the most suitable expression systems in vaccine development. Through this platform, we are capable of rapidly advancing the development of our COVID-19 and HPV vaccine candidates.

*Immunological evaluation platform*

To elucidate the mechanism of immune protection for emerging and re-emerging infectious diseases, immunological evaluation is a critical step in subunit vaccine discovery and development. With this platform, we are able to select the optimal antigen and adjuvant combination and in turn improve the immunogenicity profile of our candidates. The immunological evaluation process involves multiple disciplines, including immunology, biology, molecular biology and clinical chemistry. Our core scientific team began to build our immunological evaluation platform as early as 2004 and we became one of the first teams in China to have such a platform. With this platform, we are one of the first companies that can conduct pseudoviral neutralization, ELISPOT, and ICS tests in China, which have been used in the development of our vaccine candidates.

**Research and Development**

R&D is crucial to our sustainable success. We are led by a core scientific team with over 20 years of experience in the research, development and commercialization of vaccine products, including working experience at the CDC in China. As of the date of this announcement, our in-house R&D team consisted of over 100 talented personnel, most of them held masters or doctorate degrees in immunology, pathogen biology, clinical medicine or other related areas. Benefiting from our IPD System, our R&D team comprises four different product development teams, namely the vaccine innovation core, process research core, comprehensive R&D core and R&D quality core. Our R&D team is primarily located in our Beijing R&D center and our Taizhou R&D base, and is responsible for the full-cycle vaccine development.

Our IPD System lays a solid foundation for our R&D activities. The IPD System governs the entire life cycle of vaccine candidates. We conduct market demand analysis for our vaccine candidates at the early stage of vaccine development. Such analysis will serve as the basis of our vaccine development program to ensure our vaccine products can meet the market demand. In addition, under the IPD System, our R&D resources are allocated for the goals of each R&D project. As vaccine development involves a complex and multi-disciplinary process, for each vaccine development project, we will assign a designated project manager and establish a product development team, consisting of employees from technology platforms and related departments including clinical and regulatory affairs, manufacturing, quality control and quality assurance. In addition, our management team is responsible for crucial decision-making and technical review at key points during the R&D process to ensure the R&D can satisfy our R&D protocol and the applicable legal and quality requirements. Empowered by the IPD System, we have been able to advance multiple vaccine development programs simultaneously.

We have developed three advanced technology platforms for novel adjuvant development, protein engineering and immunological evaluation. These platforms empower us to continue to discover and develop subunit vaccines that apply advanced technologies in our vaccine candidates. Our technology platforms have formed a "solid trifecta", creating synergies in antigen design optimization, the development and production of adjuvants, and the formulating of the combination of the optimal antigen-adjuvant. Supported by these platforms, we have developed several vaccine candidates. We are constantly upgrading our technology platforms to further enrich our R&D toolbox and we believe that our technology platforms will continue to drive our vaccine candidate development going forward.

For the six months ended June 30, 2023, our total research and development costs amounted to RMB248 million and we had not capitalized any research and development costs for the same period.

## Manufacturing and Commercialization

Our R&D activities have primarily been conducted at our Beijing R&D center and Taizhou headquarters. Our Beijing R&D center is equipped with a pilot plant mainly for the pre-IND process development and has laboratories for vaccine R&D with a total GFA of approximately 4,000 sq.m. Our Taizhou headquarters R&D facility has a total GFA of approximately 3,800 sq.m. and four pilot plants, mainly for the manufacturing of our clinical trial samples and process development. Our R&D facilities can also support the manufacturing and development of novel adjuvants. Most of our vaccine candidates used in our clinical trials have been manufactured by our in-house manufacturing team, including our HPV vaccine pipeline.

In anticipation of the huge market demand of our clinical-stage vaccine candidates, we have started to prepare for the commercial manufacturing of our vaccine candidates. We are constructing our HPV vaccine manufacturing facility in Taizhou, Jiangsu province, the first phase of which has a designed peak annual capacity of 20 million doses of HPV 9-valent vaccines. In addition, we completed the construction of our GMP-standard manufacturing facility for ReCOV in Taizhou, Jiangsu province in November 2021 and obtained a vaccine manufacturing license issued by Jiangsu Medical Products Administration. The manufacturing facility has a total GFA of approximately 17,000 sq.m., and can also be used for the manufacturing of recombinant shingles vaccines. On April 9, 2022, the Company received the European Union (EU) Qualified Person Declaration issued by a Qualified Person (QP) for our ReCOV manufacturing facility in Taizhou.

We have engaged third-party CMOs and manufacturers to produce vaccine samples for our clinical trials, aiming for an efficient and more cost-effective process. We have also adopted stringent procedures to ensure the facilities and production qualifications of our CMOs are in compliance with the relevant regulatory requirements and all of our CMOs are GMP certified. We selected a limited number of industry-leading third party CMOs based on their qualification, relevant expertise, manufacturing capacity, track record and the contract terms.

As of the date of this announcement, we had only one COVID-19 vaccine approved for emergency use authorization in Mongolia. We have formulated clear commercialization strategy for our clinical-stage vaccine candidates, namely HPV vaccines, COVID-19 vaccines and recombinant shingles vaccines. In building sales channels and terminals for the commercialization of our vaccine candidates in domestic and international markets, we are currently building our sales team and international business development team. Our marketing team will be responsible for sales and academic promotion activities of the Company's products in China in the future, and our international business development team plans to enter into collaborations with foreign governments, MNCs, CSOs and international organizations to commercialize the Company's products overseas.

## Intellectual Property

As a company focusing on the research, development and commercialization of recombinant vaccine products, we believe intellectual property is crucial to our business. We actively seek patent protection for our vaccine candidates in China and major jurisdictions and file additional patent applications, when appropriate, to cover certain antigens, strains, proteins, formulations and production processes. We have developed a significant portfolio of intellectual property rights to protect our technologies and products. As of June 30, 2023, we had registered 11 invention patents and had filed 103 patent applications (100 Chinese patent applications, and 3 PCT patent applications). In particular, we constantly strengthen the deployment of proprietary intellectual property rights for innovative vaccines. Among them, for the protein engineering platform and

mRNA technology platform, we have applied for a total of 15 invention patents in relation to antigens for recombinant human herpes simplex virus vaccine (HSV), SARS-COV-2 and its variants vaccine, and respiratory syncytial virus vaccine (RSV) projects. For the new adjuvant platform, we have applied for 16 invention patents in relation to key raw materials for adjuvants, of which one patent for a new adjuvant has been granted. For the six months ended June 30, 2023, we were not involved in any proceedings in respect of, and we had not received notice of any claims of infringement of, any intellectual property rights that might be threatened or pending as claimant or respondent.

**Employees and Remuneration**

As of June 30, 2023, the Group had 434 employees, all of whom were based in China. The total staff costs incurred by the Group (which are recorded as part of our administrative expenses, research and development costs and selling and distribution expenses) for the six months ended June 30, 2023 was RMB116 million, as compared to RMB101 million for the six months ended June 30, 2022. The remuneration package of our employees includes wages and other incentives, which are generally determined by their qualifications, industry experience, positions and performance. We conduct new employee training, as well as professional and safety training programs for all employees in accordance with our internal procedures. We make contributions to social insurance and housing provident funds in compliance with applicable PRC laws and regulations in all material respects. We also enter into standard confidentiality, intellectual property assignment and non-competition agreements with our key management and research and development staff, which typically include a standard non-compete agreement that prohibits the employee from competing with us, directly or indirectly, during his or her employment and for two years after the termination of his or her employment. Employees also sign acknowledgments regarding service inventions and discoveries made during the course of his or her employment.

**Business Outlook**

Going forward, leveraging our strengths, we plan to implement the following strategies, which we believe will further strengthen our core competitive strengths and enable us to capture rising business opportunities:

- accelerate the R&D, clinical trial and commercialization of our vaccine candidates;
- continue to strengthen our R&D capabilities;
- refine our organization structure and human resource management to enhance our competitiveness; and
- advance our international strategy through “going-out” and “bringing-in” strategies.

Since June 30, 2023 and up to the date of this announcement, we have further advanced clinical trials for our vaccine candidates, and to the best of our knowledge, there is no change to the overall economic and market condition in China or in the industry in which we operate that may have a material adverse effect to our business operations and financial position.

## FINANCIAL REVIEW

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

### Analysis of Our Key Items of Our Results of Operations

#### *Other Income and Gains*

Our other income and gains decreased by 24% from RMB79 million for the six months ended June 30, 2022 to RMB60 million for the six months ended June 30, 2023, primarily attributable to the year-on-year decrease in foreign exchange gains of RMB36.6 million and the year-on-year increase in interest income of RMB17.7 million.

#### *Selling and Distribution Expenses*

Our selling and distribution expenses increased from RMB4 million for the six months ended June 30, 2022 to RMB5 million for the six months ended June 30, 2023, primarily attributable to the commercialization progress of our products, resulting in an increase in the headcount of our marketing department, and the corresponding increase in labor costs and overhead expenses.

#### *Research and Development Costs*

Our research and development costs decreased by 30.00% from RMB354 million for the six months ended June 30, 2022 to RMB248 million for the six months ended June 30, 2023. Such decrease in research and development costs resulted from the following:

- RMB74 million decrease in clinical trial expenses from RMB179 million for the six months ended June 30, 2022 to RMB105 million for the six months ended June 30, 2023, mainly due to the decrease in clinical investment compared with the previous period as our Core Product REC603 had been in the middle stage of follow-up visit of Phase III clinical trials and ReCOV had entered the final stage of data collection of Phase III clinical trials;

- RMB51 million decrease in pre-IND expenses from RMB64 million for the six months ended June 30, 2022 to RMB13 million for the six months ended June 30, 2023, mainly because the Company's three major pipeline products had substantially completed their preliminary research and development and are currently in the clinical stage, while most of the other pipeline products are in the pre-research stage.

#### *Administrative Expenses*

Our administrative expenses increased from RMB77 million for the six months ended June 30, 2022 to RMB78 million for the six months ended June 30, 2023.

#### *Other Expenses*

Our other expenses increased from RMB0 for the six months ended June 30, 2022 to RMB142 thousand for the six months ended June 30, 2023, mainly due to the donation of the "Recbio Embarking Scholarship" to Shenyang Pharmaceutical University.

### *Finance Costs*

Our financial costs increased from RMB1 million for the six months ended June 30, 2022 to RMB5 million for the six months ended June 30, 2023, mainly because we obtained additional debt financing as the research and development projects and industrialization progressed.

## Analysis of Key Items of Financial Position

### *Property, Plant and Equipment*

Our property, plant and equipment primarily consisted of (i) leasehold improvements; (ii) plant and machinery; (iii) furniture and fixtures; (iv) computer and office equipment; (v) motor vehicles; and (vi) construction in progress. Our property, plant and equipment increased from RMB559 million as of December 31, 2022 to RMB618 million as of June 30, 2023, mainly because we purchased additional machinery and equipment necessary for future industrialization and R&D of the Company, which were expensive; in addition, construction in progress also significantly increased as the construction of the purification and decoration project for the vaccine building and quality inspection building of Jiangsu Recbio HPV Industrialization Base gradually picked up.

### *Right-of-use Assets*

Our right-of-use assets represent (i) leasehold land, representing the land use right of our manufacturing facility for our HPV vaccines with an original use right of 50 years; and (ii) leased properties, representing our leased manufacturing facility for ReCOV and our leased office building and laboratories. Our right-of-use assets decreased from RMB73 million as of December 31, 2022 to RMB64 million as of June 30, 2023, mainly because we terminated the lease of certain leased assets of Beijing ABZYMO in advance due to the change in the direction of our business strategy.

### *Other Non-current Assets*

Our other non-current assets mainly represent our time deposits and prepayment for purchase of property, plant and equipment. Our other non-current assets increased from RMB216 million as of December 31, 2022 to RMB247 million as of June 30, 2023, mainly due to the significant increase in the prepaid engineering and equipment costs as a result of the increase in production equipment and the number of decoration contracts in relation to factories and industrialization bases as the industrialization process constantly advanced.

### *Prepayments, Other Receivables and Other Assets*

Our prepayments, other receivables and other assets increased from RMB39 million as of December 31, 2022 to RMB122 million as of June 30, 2023, mainly because we purchased more raw materials for process validation and paid more material prepayments as the clinical progress of the HPV project advanced.

***Cash and Bank Balances***

Our cash and bank balance decreased from RMB1,325 million as of December 31, 2022 to RMB1,099 million as of June 30, 2023, mainly due to the purchase of research and development services, raw materials and equipment, the industrialization construction, and administrative expenses.

***Trade Payables***

Our trade payables increased from RMB63 million as of December 31, 2022 to RMB69 million as of June 30, 2023, mainly because as research and development projects progressed, the procurement of raw materials used for experiments and reagents increased, resulting in an increase in balance payable.

***Other Payables and Accruals***

Our other payables and accruals decreased from RMB245 million as of December 31, 2022 to RMB198 million as of June 30, 2023, mainly due to the decrease in accruals compared with the previous period as our COVID-19 vaccine pipeline entered the final stage of Phase III clinical trials.

***Lease Liabilities***

Our lease liabilities decreased from RMB50 million as of December 31, 2022 to RMB48 million as of June 30, 2023, mainly because we terminated the lease of certain leased assets of Beijing ABZYMO in advance due to the change in the direction of our business strategy.

**Liquidity and Capital Resources**

Our primary uses of cash relate to the research and development of our vaccine candidates and the purchase of equipment and machinery. For the six months ended June 30, 2023, we primarily funded our working capital requirement through equity financing and bank borrowings. We monitor and maintain a level of cash and cash equivalents deemed adequate to finance our operations and mitigate the effects of fluctuations in cash flows. As our business develops and expands, we expect to generate more cash from our operating activities through commercialization of new vaccines. Going forward, we believe our liquidity requirements will be satisfied by using funds from a combination of cash from operations, bank balances and cash and net proceeds from the Global Offering. As of June 30, 2023, our cash and bank balances amounted to RMB1,099 million. Out of the RMB1,099 million cash and bank balances as of June 30, 2023, RMB140 million (approximately 13%) was denominated in RMB, RMB702 million (approximately 64%) was denominated in U.S. dollars and RMB257 million (approximately 23%) was denominated in Hong Kong dollars.

### *Net Current Assets*

Our net current assets decreased from RMB1,091 million as of December 31, 2022 to RMB946 million as of June 30, 2023, primarily due to the decrease in inventory levels and impairment of obsolete inventory.

### *Charge on Asset*

As of June 30, 2023, the Group had pledged the real estate located on the west side of Xiangtai Road and the north side of Yaocheng Avenue in Medical High-tech District, Taizhou, Jiangsu Province for a loan with a principal of RMB182 million.

### *Indebtedness and Financial Ratios*

The total interest-bearing bank borrowings of the Group as of June 30, 2023 were RMB461 million. RMB7 million of the bank borrowings were current borrowings with a maturity date in 2024 and an effective rate of 3.45-4.65%. RMB454 million of the bank borrowings were non-current bank borrowings with a maturity date in 2025-2028 and an effective rate of 3.45-4.65%.

Our current ratio (calculated as current assets divided by current liabilities as of the same date) decreased from 4.3 as of December 31, 2022 to 4.0 as of June 30, 2023, mainly due to the decrease in cash and cash equivalents resulting from the purchase of fixed assets.

Our gearing ratio (calculated as total liabilities divided by total assets as of the same date) was 40% as of June 30, 2023 (as of December 31, 2022: 28%), which was due to the large amount of loans borrowed for production and operations.

### *Contingent Liabilities*

As of June 30, 2023, we did not have any contingent liabilities.

### *Capital Expenditure and Contractual Commitments*

Our capital expenditure primarily includes (i) construction in progress; (ii) plant and machinery; (iii) leasehold improvements; (iv) motor vehicles; (v) computers and office equipment; and (vi) furniture and fixtures. Our capital expenditure increased from RMB84 million for the six months ended June 30, 2022 to RMB102 million for the six months ended June 30, 2023, mainly related to the increase in the procurement of production equipment during the period.

Our capital expenditure commitments increased from RMB69 million as of December 31, 2022 to RMB102 million as of June 30, 2023, primarily attributable to further progress in research and development projects, resulting in the continued increase in investment in construction and procurement of equipment, as well as significant increase in construction in progress during the period.

As disclosed in the Prospectus, we plan to apply approximately HK$88 million from the proceeds from the Global Offering (before exercise of over-allotment option) for constructing the HPV manufacturing facility in Taizhou. Save as disclosed above, the Group had no other material capital expenditure or investment plan as of the date of this announcement.

## Significant Investments and Material Acquisitions and Disposals

Save as disclosed in this announcement, our Company had no other significant investments, material acquisitions and/or disposals of subsidiaries, associates and joint ventures for the six months ended June 30, 2023.

## Events after the Reporting Period

Save as disclosed in this announcement, we are not aware of any material subsequent events from the end of the Reporting Period to the date of this announcement.

## Financial Risks

We are exposed to a variety of financial risks, including interest risk, foreign currency risk, credit risk and liquidity risk as set out below. Our overall risk management program focuses on the unpredictability of financial markets and seeks to minimize potential adverse effects on our financial performance.

## Interest Risk

The Group has no significant interest-bearing assets other than time deposits and cash and cash equivalents. The Group's interest rate risk arises from its borrowings, which are at variable rates and expose the Group to the risk of changes on market interest rates. The Group has not used any interest rate swaps to hedge its exposure to interest rate risk. The Group's exposure to the risk of changes in market interest rates relates primarily to the Group's debt obligations with a floating interest rate.

As at June 30, 2023, if interest rates on loans had been 50 basis points higher/lower with all other variables held constant, the loss before tax for the six months ended June 30, 2023 would have been RMB867,000 (2022: RMB670,000) higher/lower, mainly as a result of higher/lower interest expense on loans.

## Foreign Currency Risk

We mainly operate in China and a majority of our transactions are settled in RMB, the functional currency of our Company's principal subsidiaries. The Group however has certain transactional currency exposure as a portion of our transactions are settled in U.S. dollars. The Group only trades with recognized and credit-worthy third parties. In addition, receivable balances are monitored on an ongoing basis and the Group's exposure to bad debts is not significant. We currently do not have a foreign currency hedging policy. However, our management monitors foreign exchange exposure and will consider hedging significant foreign exchange exposure should the need arise. The Group did not have significant foreign currency exposure from its operations as of June 30, 2023.

**Credit Risk**

We generally trade only with recognized and creditworthy third parties. In addition, receivable balances are monitored on an ongoing basis and our exposure to bad debts is not significant. The credit quality of the financial assets included in prepayments, other receivables and other assets is considered to be "normal" when they are not past due and there is no information indicating that the financial assets had a significant increase in credit risk since initial recognition. Otherwise, the credit quality of the financial assets is considered to be "doubtful".

As of June 30, 2023, cash and cash equivalents were deposited in banks of high quality without significant credit risk. The Directors are of the view that our exposure to credit risk arising from other receivables is not significant since counterparties to these financial assets have no history of default.

**Liquidity Risk**

In the management of the liquidity risk, we monitor and maintain a level of cash and cash equivalents deemed adequate by the management of our Group to allocate the working capital and mitigate the effects of fluctuations in cash flows. Our objective is to maintain a balance between continuity of funding and flexibility through the use of bank loans and other borrowings and lease liabilities. We aim to maintain sufficient cash and cash equivalents to meet our liquidity requirements.

**Future Plans for Material Investments and Capital Assets**

Save as disclosed in this announcement, we do not have other plans for material investments and capital assets as of the date of this announcement.

## OTHER INFORMATION

## PURCHASE, SALE OR REDEMPTION OF OUR COMPANY'S SHARES

On December 28, 2022, the Company held an extraordinary general meeting and class meetings of Shareholders, wherein we considered and approved the resolutions in relation to the issuance of Domestic Shares and its related matters (the "**Proposed Issuance**"). Accordingly, in order to further enhance the Company's overall competitiveness, increase the risk resistance capacity, supplement R&D funds for product pipelines under development and promote the steady and sound development of our business, the Company proposed to issue not more than 57,955,560 Domestic Shares to not more than 35 qualified domestic institutional investors with a nominal value of RMB1.00 each.

The proceeds from the Proposed Issuance are currently expected to be no less than HK$640 million and will be used for the following purposes: (1) approximately 50% will be allocated for REC610, including the IND application, clinical trials, BLA submission, manufacturing facility construction and commercialization; (2) approximately 25% will be allocated for ReCOV, including the ongoing phase III clinical trials in Philippines, Nepal and Russia; and (3) approximately 25% will be allocated for the working capital and general corporate purposes.

On April 19, 2023, the Company received the Reply of the Approval on the Registration of Shares Issued by Jiangsu Recbio Technology Co., Ltd. to Target Subscribers (Zheng Jian Xu Ke No.[2023]786) (《關於同意江蘇瑞科生物技術股份有限公司向特定對象發行股票註冊的批覆》(證監許可[2023]786號)) from the CSRC, pursuant to which the CSRC has approved the Proposed Issuance. The Proposed Issuance is subject to certain conditions, and details of the issuance plan are not yet finalized. Further disclosure in respect of the Proposed Issuance will be made by the Company as appropriate in accordance with the Listing Rules and/or applicable laws and regulations in due course.

For details of the Proposed Issuance, please refer to the announcements of the Company dated October 31, 2022, December 28, 2022, February 8, 2023 and April 19, 2023 and the circular of the Company dated December 13, 2022.

Save as disclosed in this announcement, during the Reporting Period, neither our Company nor any of its subsidiaries purchased, sold or redeemed any listed securities of the Company.

## H SHARE FULL CIRCULATION

On August 15, 2022, the Company held an extraordinary general meeting and class meetings of Shareholders to review and approve the proposal to apply for the "Full Circulation" of the Company's unlisted shares.

On August 25, 2022, the Company received a formal acceptance letter from the CSRC regarding the Company's submission to the CSRC of its application for the implementation of this H Share full circulation (the "**Application**"). According to the Application, the Company applied to convert 222,498,569 Domestic Shares into H Shares and list them on the Stock Exchange.

On November 10, 2022, the Company received approval from the CSRC for the Application. According to the approval, accordingly, the CSRC approved 46 Shareholders of the Company to convert a total of 222,498,569 Domestic Shares into H Shares and list them on the Stock Exchange. The approval is valid for 12 months from the date of approval (November 3, 2022).

On December 1, 2022, the Stock Exchange granted approval for the listing and trading of 222,498,569 H Shares (i.e., the maximum number of Domestic Shares to be converted according to the conversion and listing).

On February 20, 2023, the Company completed the conversion of 222,498,569 Domestic Shares into H Shares. The converted H Shares were listed on the Stock Exchange at 9:00 a.m. on February 21, 2023.

For details of the Company's H Share full circulation plan, please refer to the Company's announcements dated June 30, 2022, August 15, 2022, August 25, 2022, November 10, 2022, December 5, 2022 and February 20, 2023 and the circular dated July 29, 2022.

## MODEL CODE FOR SECURITIES TRANSACTIONS

Our Company has adopted the Model Code since the Listing Date.

Specific enquiry has been made of all the Directors and Supervisors, and all Directors and Supervisors confirmed that they have complied with the Model Code for transactions in our Company's securities during the Reporting Period.

## CORPORATE GOVERNANCE PRACTICES

We strive to maintain high standards of corporate governance to safeguard the interests of the Shareholders and to enhance corporate value and accountability. Our Company has adopted the Code Provisions of the CG Code as the basis of our Company's corporate governance practices since the Listing Date.

Save as disclosed below, our Company has complied with all applicable Code Provisions as set out in the CG Code during the Reporting Period and up to the date of this announcement.

Under Code Provision C.2.1 of the CG Code, the roles of chairman and chief executive officer should be separate and should not be performed by the same individual. In view of Dr. Liu's experience, personal profile and his roles in our Company and that Dr. Liu has assumed the role of general manager of our Company since our commencement of business, the Board considers it beneficial to the business prospect and operational efficiency of our Company that Dr. Liu acts as the chairman of the Board and continues to act as the general manager of our Company.

While this will constitute a deviation from the Code Provision, the Board believes that this structure will not impair the balance of power and authority between the Board and the management of our Company, given that: (i) any decision to be made by our Board requires approval by at least a majority of our Directors; (ii) Dr. Liu and the other Directors are aware of and undertake to fulfil their fiduciary duties as Directors, which require, among other things, that they act for the benefits and in the best interests of our Company and will make decisions for our Company accordingly; and (iii) the balance of power and authority is ensured by the operations of the Board which comprises experienced and high caliber individuals who meet regularly to discuss issues affecting the operations of our Company. Moreover, the overall strategic and other key business, financial, and operational policies of our Company are made collectively after thorough discussions by both the Board and senior management. The Board will continue to review the effectiveness of the corporate governance structure of our Company in order to assess whether separation of the roles of chairman of the Board and chief executive officer is necessary.

## RISK MANAGEMENT AND INTERNAL CONTROL

The Board acknowledges its responsibility for the risk management and internal control systems and reviewing their effectiveness. Our Company has established a comprehensive risk management and internal control system and relevant policies and procedures which we consider suitable for our business operations. For details, please refer to the section headed "Risk Management and Internal Control" from the 2022 annual report of the Company.

As our priority concern, during the Reporting Period, each department of the Company had regularly undergone internal monitoring and assessment to identify risks that may impact the Company's operations and other aspects, including key operational and financial processes, regulatory and compliance and data security. The internal audit department also inspected and reported to the Board on the sufficiency and effectiveness of risk management and internal control systems, and confirmed that no whistleblowing report on misconducts in respect of financial reporting, internal control or other aspects between the Group's employees and those who deal with the Group (e.g. customers and suppliers) was received during the first half of the year. We will continuously optimize and further improve each of the above systems and procedures to facilitate the benign and wholesome development of the Company.

## INTERIM DIVIDEND

The Board did not recommend the distribution of an interim dividend for the six months ended June 30, 2023.

## AUDIT COMMITTEE AND REVIEW OF FINANCIAL STATEMENTS

Our Company established the Audit Committee with written terms of reference in compliance with Rule 3.21 of the Listing Rules and the CG Code as set out in Appendix 14 to the Listing Rules. The Audit Committee consists of three members, including two independent non-executive Directors, namely Dr. Xia Lijun and Professor Yuen Ming Fai and one non-executive Director, namely Dr. Zhou Hongbin. Dr. Xia Lijun has been appointed as the chairman of the Audit Committee, and is our independent non-executive Director holding the appropriate professional qualifications. The Audit Committee has reviewed the unaudited interim results of the Group for the six months ended June 30, 2023 and considered that the results complied with relevant accounting standards, rules and regulations and appropriate disclosure have been duly made.

The interim financial report for the six months ended June 30, 2023 is unaudited, but has been reviewed by Ernst & Young 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.

## PUBLICATION OF INTERIM REPORT

The interim report of the Group for the six months ended June 30, 2023 containing all the relevant information required by the Listing Rules will be published on the websites of the Stock Exchange (http://www.hkexnews.hk) and the Company (www.recbio.cn), in accordance with the Listing Rules in due course.

## DEFINITIONS AND GLOSSARY OF TECHNICAL TERMS

### Definitions

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| "Audit Committee" | the audit committee of our Company; |
| "Beijing ABZYMO" | Beijing ABZYMO Biosciences Co., Ltd. (北京安百勝生物科技有限公司), a limited liability company established in the PRC on March 7, 2011 and our wholly-owned subsidiary; |
| "Board" | the board of Directors of our Company; |
| "CDE" | the Center for Drug Evaluation of NMPA (國家藥品監督管理局藥品審評中心), a division of the NMPA mainly responsible for review and approval of IND and BLA; |
| "CG Code" | the Corporate Governance Code contained in Appendix 14 to the Listing Rules, as amended, supplemented or otherwise modified from time to time; |
| "China" or "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, references in this announcement to "China" and the "PRC" do not include Hong Kong, the Macau Special Administrative Region of the PRC and Taiwan; |
| "Code Provision(s)" | the principles and code provisions set out in the CG Code; |
| "Companies Ordinance" | the Companies Ordinance (Chapter 622 of the Laws of Hong Kong), as amended, supplemented or otherwise modified from time to time; |
| "Company" or "our Company" | Jiangsu Recbio Technology Co., Ltd. (江蘇瑞科生物技術股份有限公司), a joint stock company incorporated in the PRC with limited liability, the H Shares of which are listed on the Stock Exchange (stock code: 2179); |

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| "Core Product" | has the meaning ascribed to it in Chapter 18A of the Listing Rules; for the purpose of this announcement, our Core Product refers to REC603, a recombinant HPV 9-valent vaccine candidate; |
| "CSRC" | China Securities Regulatory Commission; |
| "Director(s)" | the director(s) of our Company; |
| "Domestic Share(s)" | ordinary shares in the share capital of our Company, with a nominal value of RMB1.00 each, which are subscribed for and paid up in Renminbi by domestic investors; |
| "Dr. Liu" | Dr. Liu Yong, the executive Director and general manager of our Group; |
| "FDA" | the United States Food and Drug Administration; |
| "Global Offering" | the global offering of 30,854,500 H Shares (subject to over-allotment option) as described in the Prospectus; |
| "Group", "our Group", "we" or "us" | our Company and all of our subsidiaries or, where the context so requires, in respect of the period before our Company became the holding company of its present subsidiaries, the businesses operated by such subsidiaries or their predecessors (as the case may be); |
| "H Share(s)" | overseas listed foreign share(s) in the share capital of our Company, with a nominal value of RMB1.00 each, which are listed on the Stock Exchange and traded in Hong Kong dollars; |
| "HK$" or "Hong Kong dollars" | Hong Kong dollars, the lawful currency of Hong Kong; |
| "Hong Kong" | the Hong Kong Special Administrative Region of the PRC; |
| "IASB" | International Accounting Standards Board; |
| "IFRS" | the International Financial Reporting Standards, which as collective term includes all applicable individual International Financial Reporting Standards, International Accounting Standards and Interpretations issued by the IASB; |
| "Listing" | the listing of our H Shares on the Stock Exchange; |

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| "Listing Date" | March 31, 2022, on which dealings in our H Shares first commenced on the Main Board of the Stock Exchange; |
| "Listing Rules" | the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited, as amended, supplemented or otherwise modified from time to time; |
| "Main Board" | the stock exchange (excluding the option market) operated by the Stock Exchange, which is independent from and operated in parallel with the Growth Enterprise Market of the Stock Exchange; |
| "Model Code" | the Model Code for Securities Transactions by Directors of Listed Issuers set out in Appendix 10 to the Listing Rules, as amended, supplemented or otherwise modified from time to time; |
| "NMPA" | the National Medical Products Administration of the PRC (國家藥品監督管理局) and its predecessor, the China Food and Drug Administration (國家食品藥品監督管理總局); |
| "Prospectus" | the prospectus issued by our Company on March 21, 2022 in relation to our Global Offering and Listing; |
| "Reporting Period" | the six months ended June 30, 2023; |
| "RMB" or "Renminbi" | Renminbi, the lawful currency of the PRC; |
| "Share(s)" | share(s) in the share capital of our Company, with a nominal value of RMB1.00 each, comprising our Domestic Shares, Unlisted Foreign Shares and H Shares; |
| "Shareholders" | holders of our Shares; |
| "Stock Exchange" | The Stock Exchange of Hong Kong Limited; |
| "subsidiary(ies)" | has the meaning ascribed thereto in section 15 of the Companies Ordinance; |
| "Supervisor(s)" | supervisor(s) of our Company; |
| "United States" or "U.S." | the United States of America, its territories, its possessions and all areas subject to its jurisdiction; |
| "U.S. dollars" | United States dollars, the lawful currency of the United States; |

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| "Wuhan Recogen" | Wuhan Recogen Biotechnology Co., Ltd. (武漢瑞科吉生物科技有限公司), a limited liability company established in the PRC on September 28, 2021. |

**Glossary of Technical Terms**

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| "adjuvant" | a substance that may be added to a vaccine to enhance the body's immune response to an antigen; |
| "adjuvant system" | formulations of classical adjuvants mixed with immunomodulators, specifically adapted to the antigen and the target population; |
| "AE" | adverse events, any untoward medical occurrences in a patient or clinical investigation subject administered with a drug or other pharmaceutical product during clinical trials and which do not necessarily have a causal relationship with the treatment; |
| "antigen" | the substance that is capable of stimulating an immune response, specifically activating lymphocytes, which are the body's infection-fighting white blood cells; |
| "AS01" | a liposome-based vaccine adjuvant system, which contains 3-O-desacyl-4'-monophosphoryl lipid A (MPL), as well as the saponin QS-21; |
| "AS03" | an adjuvant system composed of α－tocopherol, squalene and polysorbate 80 in an oil-in-water emulsion; |
| "AS04" | an adjuvant system composed of aluminum salt and monophosphoryl lipid A (MPL), a clinically utilized TLR4 agonist; |
| "B cell(s)" | a type of white blood cell that differ(s) from other lymphocytes like T-cells by the presence of the BCR on the B-cell's outer surface, also known as B-lymphocytes; |
| "BLA" | biologics license application; |
| "CD4" | a transmembrane glycoprotein that is expressed as a single polypeptide chain on the MHC class II-restricted T-cells; |

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| "CD4+ T cells" | a type of important T lymphocyte that helps coordinate the immune response by stimulating other immune cells to fight infections; |
| "CD8+ T cells" | a type of important T lymphocytes for immune defense against intracellular pathogens, including viruses and bacteria, and for tumour surveillance; |
| "CDC" | Centre for Disease Control and Prevention; |
| "cervical cancer" | cancer that occurs in the cervix – the lower part of the uterus that connects to the vagina; |
| "CHO cell" | Chinese Hamsters Ovary Cell, which is widely used in biopharmaceutical industry to produce recombinant proteins; |
| "CMO(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; |
| "COVID-19" | Coronavirus Disease 2019, an infectious disease caused by the most recently discovered coronavirus, first reported in December 2019; |
| "DALYs" | the disability-adjusted life year, a measure of overall disease burden, expressed as the number of years lost due to ill-health, disability or early death; |
| "E.coli" | Escherichia coli expression system, an expression system used in vaccine R&D and manufacturing; |
| "emulsion" | a mixture of two or more liquids that are normally immiscible (unmixable or unblendable) owing to liquid-liquid phase separation; |
| "epitopes" | part of an antigen that is recognized by the immune system, specifically by antibodies, B cells, or T cells; |
| "EV71" | Enterovirus 71, most EV71 infections commonly result in hand-foot-mouth disease (HFMD); |
| "GFA" | gross floor area; |
| "GMP" | good manufacturing practices; |
| "GMT" | geometric mean titers; |

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| "H. polymorpha" | Hansenula polymorpha, a well-known model organism, which can utilize methanol as the carbon source and energy source, used widely for studying cellular, metabolic, and genetic issues, and used in vaccine industry for expression of recombinant proteins; |
| "HFMD" | hand-foot-mouth disease, a common infectious disease among infants and children, characterized by fever, sores in the mouth and a rash with blisters on hands, feet and also buttocks; |
| "HIV" | human immunodeficiency virus, which attacks cells that help the body fight infection, making a person more vulnerable to other infections and diseases and spreading by contact with certain bodily fluids of an infected person; |
| "HPV" | human papillomavirus, persistent infection of high-risk types can cause cervical cancer; |
| "HPV 9-valent vaccine" | a vaccine that can help protect individuals against the infections and diseases caused by nine types of HPV; |
| "HPV bivalent vaccine" | vaccines that can prevent infections of two HPV types; |
| "HPV quadrivalent vaccine" | vaccines that can prevent infections of four HPV types; |
| "immune response" | the process by which the body is stimulated by antigens; |
| "immunogenicity" | the ability of an antigen to provoke immune response; |
| "IND" | investigational new drug or investigational new drug application; |
| "influenza" or "flu" | highly infectious respiratory diseases caused by influenza viruses. It is characterised by sudden onset of high fever, aching muscles, headache, fatigue and a hacking cough. Serious outcome of influenza can result in hospitalization or death; |
| "IPD" | Integrated Product Development, a structure of work and best practices that causes people to work together more effectively with better communications and metrics that connect the entire value chain which is the standard of the matrix management mode; |
| "MF59" | an adjuvant system that uses a derivative of shark liver oil called squalene; |

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| "mRNA" | messenger ribonucleic acid, a single-stranded molecule of RNA that corresponds to the genetic sequence of a gene, and is read by a ribosome in the process of synthesizing a protein; |
| "neutralizing antibodies" or "NAb" | an antibody that is responsible for defending cells from pathogens, which are organisms that cause disease; |
| "NTD" | N-terminal domain, a region of the protein's polypeptide chain located at the start of the protein that is self-stabilizing and that folds independently from the rest; |
| "Omicron variant" | variant of lineage B.1.1.529 of SARS-Co-2, the virus that causes COVID-19; |
| "OPTI" | the management philosophy adopted by our Company, which referred to Opportunity, Prudence, Technology and Intellectual Property; |
| "pathogens" | a bacteria, virus, or other microorganism that can cause disease; |
| "QS-21" | a purified plant extract used as a vaccine adjuvant; |
| "R&D" | research and development; |
| "RBD" | receptor binding domain, a key part of a virus located on its "spike" protein that allows it to dock to body receptors to gain entry into cells and lead to infection; |
| "SAE" | serious adverse events, any untoward medical occurrence in human drug trials that at any dose: results in death; is life threatening; requires inpatient hospitalization or causes prolongation of existing hospitalization; results in persistent or significant disability and/or incapacity; may have caused a congenital anomaly/birth defect, or requires intervention to prevent permanent impairment or damage; |
| "SARS-CoV-2" | severe acute respiratory syndrome coronavirus 2, the strain of coronavirus that causes COVID-19; |
| "shingles" | a viral infection that causes a painful rash; |

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| "T cell(s)" | cell(s) that originate in the thymus, mature in the periphery, become activated in the spleen/nodes if their T-cell receptors bind to an antigen presented by an MHC molecule and they receive additional costimulation signals driving them to acquire killing (mainly CD8+ T cells) or supporting (mainly CD4+ T cells) functions; |
| "TB" | tuberculosis, an infection caused by Mycobacterium tuberculosis that primarily affects the lungs; |
| "TLR4" | a receptor for lipopolysaccharide (LPS), which has a pivotal role in the regulation of immune responses to infection; |
| "tolerability" | the degree to which overt AEs of a drug can be tolerated by a patient. Tolerability of a particular drug can be discussed in a general sense, or it can be a quantifiable measurement as part of a clinical study; |
| "varicella" | an acute infectious disease caused by the first infection of varicella zoster virus; |
| "VLPs" | virus-like particles, are molecules that closely resemble viruses; |
| "WHO" | World Health Organization. |

Certain amounts and percentage figures included in the announcement have been subject to rounding adjustments.

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

By order of the Board
**Jiangsu Recbio Technology Co., Ltd.**
**Dr. Liu Yong**
*Chairman*

Jiangsu Province, the PRC, August 25, 2023

*As at the date of this announcement, the Board comprises Dr. Liu Yong as the chairman of the Board and an executive Director, Dr. Chen Jianping, Mr. Li Bu and Ms. Chen Qingqing as executive Directors, Dr. Hong Kunxue, Dr. Zhou Hongbin, Mr. Zhang Jiaxin and Mr. Hu Houwei as non-executive Directors, and Mr. Liang Guodong, Dr. Xia Lijun, Professor Gao Feng and Professor Yuen Ming Fai as independent non-executive Directors.*