



江蘇瑞科生物技術股份有限公司

Jiangsu Recbio Technology Co., Ltd.

(a joint stock company incorporated in the People's Republic of China with limited liability)
(於中華人民共和國註冊成立的股份有限公司)

Stock Code 股份代號：2179

2023

中期報告
INTERIM REPORT

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Corporate Information 公司資料

DIRECTORS

Executive Directors¹

Dr. LIU Yong (*Chairman of the Board and General Manager*)
Dr. CHEN Jianping
Mr. LI Bu
Ms. CHEN Qingqing

Non-Executive Directors²

Dr. HONG Kunxue
Dr. ZHOU Hongbin
Mr. ZHANG Jiaxin
Mr. HU Houwei

Independent Non-Executive Directors

Mr. LIANG Guodong
Dr. XIA Lijun
Professor GAO Feng
Professor YUEN Ming Fai

SUPERVISORS

Ms. QIAO Weiwei (*Chairwoman*)
Mr. WANG Feizhou
Ms. QIAN Ranting
Ms. LIU Ping

JOINT COMPANY SECRETARIES

Ms. CHEN Qingqing
Ms. HO Yin Kwan

董事

執行董事¹

劉勇博士 (*董事會主席兼總經理*)
陳健平博士
李布先生
陳青青女士

非執行董事²

洪坤學博士
周宏斌博士
張佳鑫先生
胡厚偉先生

獨立非執行董事

梁國棟先生
夏立軍博士
GAO Feng教授
袁銘輝教授

監事

喬偉偉女士 (*主席*)
王飛舟先生
錢然婷女士
劉平女士

聯席公司秘書

陳青青女士
何燕群女士

¹ Ms. CHEN Qingqing was appointed as an executive Director on May 11, 2023.

² Mr. ZHAO Hui and Dr. DU Wei resigned as non-executive Directors and members of the Remuneration and Appraisal Committee on March 20, 2023; Dr. FENG Tao resigned as a non-executive Director and a member of the Nomination Committee on April 3, 2023; Mr. ZHANG Jiaxin and Mr. HU Houwei were appointed as non-executive Directors on May 11, 2023.

¹ 陳青青女士於2023年5月11日獲委任為執行董事。

² 趙輝先生及杜威博士於2023年3月20日辭任非執行董事及薪酬與考核委員會委員職務；逢濤博士於2023年4月3日辭任非執行董事及提名委員會委員職務；張佳鑫先生及胡厚偉先生於2023年5月11日獲委任為非執行董事。

Corporate Information 公司資料

AUTHORISED REPRESENTATIVES

Dr. LIU Yong
Mr. LI Bu

AUDIT COMMITTEE

Dr. XIA Lijun (*Chairman*)
Professor YUEN Ming Fai
Dr. ZHOU Hongbin

REMUNERATION AND APPRAISAL COMMITTEE

Professor YUEN Ming Fai (*Chairman*)
Dr. XIA Lijun
Mr. LIANG Guodong
Professor GAO Feng
Mr. LI Bu

NOMINATION COMMITTEE

Dr. LIU Yong (*Chairman*)
Professor GAO Feng
Mr. LIANG Guodong
Dr. XIA Lijun

H SHARE REGISTRAR

Computershare Hong Kong Investor Services Limited
Shops 1712-1716, 17th Floor
Hopewell Centre
183 Queen's Road East
Wan Chai
Hong Kong

授權代表

劉勇博士
李布先生

審計委員會

夏立軍博士 (*主席*)
袁銘輝教授
周宏斌博士

薪酬與考核委員會

袁銘輝教授 (*主席*)
夏立軍博士
梁國棟先生
GAO Feng教授
李布先生

提名委員會

劉勇博士 (*主席*)
GAO Feng教授
梁國棟先生
夏立軍博士

H股證券登記處

香港中央證券登記有限公司
香港
灣仔
皇后大道東183號
合和中心
17樓1712至1716號舖

Corporate Information

公司資料

HEAD OFFICE AND REGISTERED OFFICE IN THE PRC

No. 888 Yaocheng Avenue
Medical High-tech District
Taizhou City
Jiangsu Province
the PRC

PRINCIPAL PLACE OF BUSINESS IN HONG KONG

40th Floor, Dah Sing Financial Centre
No. 248 Queen's Road East
Wanchai
Hong Kong

COMPLIANCE ADVISER

Soochow Securities International Capital Limited
Level 17, Three Pacific Place
1 Queen's Road East
Hong Kong

PRINCIPAL BANK

China Merchants Bank Co., Ltd.
Taizhou Branch
Building 10, No. 293, Gulou South Road
Hailing District
Taizhou City
Jiangsu Province, the PRC

HONG KONG LEGAL ADVISOR

Clifford Chance
27/F, Jardine House
One Connaught Place
Hong Kong

中國總部及註冊辦事處

中國
江蘇省
泰州市
醫藥高新區
藥城大道888號

香港主要營業地點

香港
灣仔
皇后大道東248號
大新金融中心40樓

合規顧問

東吳證券國際融資有限公司
香港
皇后大道東1號
太古廣場三座17樓

主要往來銀行

招商銀行股份有限公司
泰州分行
中國江蘇省
泰州市
海陵區
鼓樓南路293號10號樓

香港法律顧問

高偉紳律師行
香港
康樂廣場一號
怡和大廈27樓

Corporate Information 公司資料

PRC LEGAL ADVISOR

Zhong Lun Law Firm
22-31/F, South Tower of CP Center
20 Jin He East Avenue
Chaoyang District
Beijing, the PRC

中國法律顧問

中倫律師事務所
中國北京市
朝陽區
金和東路20號院
正大中心南塔22-31層

AUDITOR

Ernst & Young
Certified Public Accountants
Registered Public Interest Entity Auditor
27/F, One Taikoo Place
979 King's Road
Quarry Bay, Hong Kong

核數師

安永會計師事務所
執業會計師
註冊公眾利益實體核數師
香港鰂魚涌
英皇道979號
太古坊一座27樓

COMPANY'S WEBSITE

www.recbio.cn

公司網站

www.recbio.cn

STOCK CODE

2179

股份代號

2179

Chairman's Statement

主席致辭

Dear Shareholders,

I would like to extend my sincere gratitude to all of you for your great support for the Group's business and development! The current global capital market turmoil poses a challenge and an opportunity for Recbio.

Stepping into 2023, the Company adheres to its mission of "protecting human health with best-in-class vaccines", focusing on its strategic pipeline, accelerating the R&D of key varieties and preparing for their commercial application. Constantly improving its technology platform and management capabilities and enhancing its development momentum, the Company has made significant progress in all aspects of its operation and management.

REC603, a recombinant HPV 9-valent vaccine of the Company, is undergoing a phase III efficacy trial in three provinces, namely Henan, Yunnan and Shanxi. To date, we have completed the visit of the 18th month and are conducting the visit and observation of the 24th month. The design of the phase III clinical trial protocol is highly consistent with the requirements and recommendations of the newly enacted *Technical Guidelines for the Clinical Trials of Human Papillomavirus Vaccines (for Trial Implementation)*, with a leading sample size and notable advantages in the clinical site. We are more confident than ever to achieve the early market launch of REC603 and to satisfy the urgent demand for the HPV 9-valent vaccine in the global market.

REC610, a novel adjuvanted recombinant shingles vaccine, commenced its first-in-human Shingrix® active controlled clinical trial in the Philippines in February. Currently, the clinical trial is progressing smoothly. All subjects have completed the 30-day follow-up after two doses of the vaccine, which demonstrated positive safety and tolerance profiles. The Company also received the *Notice of Acceptance* for clinical trial application of REC610 issued by the National Medical Products Administration in July, and is actively preparing for phase I/III clinical trial as planned. 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 antibodies. Currently, the shingles vaccine has a vaccination rate of less than 1% in the Chinese market, and there has been no domestically produced recombinant shingles vaccine on the market, so there is a strong demand for domestically produced substitution. Coupled with the largely untapped market in developing countries, we are highly optimistic about the sales prospects of REC610 after its launch.

ReCOV, a recombinant COVID-19 vaccine, has obtained approval for emergency use in Mongolia. We are conducting an analysis on the data from our international multi-centre phase III clinical trial, and if the conditions are met, we will submit an application for marketing to the regulatory authorities in China.

尊敬的股東：

衷心感謝各位對本集團業務及發展的鼎力支持！在目前全球資本市場震蕩的背景下，對瑞科而言，是挑戰，也是機會。

邁入2023年，公司始終秉持「創製一流疫苗，守護人類健康」的使命，聚焦戰略級管線，加快推進重點品種的研發與商業化準備；持續提升技術平台和管理能力，增強公司發展後勁，公司經營管理各方面都取得了顯著進展。

公司重組HPV九價疫苗REC603正在河南、雲南和山西三個省開展III期保護效力試驗。目前已順利完成第18個月訪視，正開展第24個月的訪視觀察。該III期臨床試驗的方案設計與新生效的《人乳頭瘤病毒疫苗臨床試驗技術指導原則（試行）》的要求和建議高度一致，且樣本量領先，臨床現場優勢明顯，我們比以往更有信心實現REC603早日上市，滿足全球市場對九價HPV疫苗的迫切需求。

新佐劑重組帶狀疱疹疫苗REC610於2月在菲律賓啟動以Shingrix®為陽性對照的首次人體試驗。目前該研究進展順利，所有受試者已完成兩劑疫苗接種後30天隨訪，且安全性與耐受性良好。公司也於7月收到國家藥品監督管理局簽發的REC610臨床試驗申請《受理通知書》，正按計劃積極籌備I/III期臨床試驗。REC610搭載由本公司自主研發的新型佐劑BFA01，可促進產生高水平的VZV糖蛋白E(gE)特异性CD4+T細胞和抗體。目前中國市場帶狀疱疹疫苗接種率尚不足1%，尚無國產重組帶狀疱疹疫苗上市，國產替代需求強烈。加之廣大發展中國家市場基本處於空白狀態，我們高度看好REC610上市後銷售前景。

重組新冠肺炎疫苗ReCOV已獲得蒙古國緊急使用授權。我們正對國際多中心III期臨床進行數據分析，如滿足條件，將於中國境內向監管部門提交上市申請。

Chairman's Statement 主席致辭

Innovative research and development capability can demonstrate the core competitiveness of the Company. The Company continued to strengthen its preliminary research on innovative vaccine pipelines and core technology platforms, and quickly transformed the results into intellectual property. The Company applied for a total of 15 invention patents for recombinant vaccines against respiratory syncytial virus (RSV), vaccines against human herpes simplex virus (HSV), vaccines against SARS-COV-2 and its variants and other projects. For novel adjuvants and their key raw and auxiliary materials, the Company applied for 16 invention patents in total, one of which was granted with patent.

The Company leveraged its leading edge regarding the novel adjuvant platform and cooperated closely with upstream higher education institutions, scientific research institutes and downstream vaccine manufacturers to empower the technological progress and market expansion of the novel adjuvant and vaccine industry chain. Through independent innovation, the Company developed next-generation novel adjuvants with better performance, such as BFA07 and BFA32, to improve the intensity, breadth, type and duration of immune responses of vaccines on an ongoing basis.

On the back of its technological innovation achievements and outstanding performance in the field of novel vaccines, the Company received the 2022 List of Outstanding Influence – Best Technology Innovation Award of the Year.

Regarding the capital market, the Company was selected as a constituent of the MSCI China Small Cap Index, highlighting the attention and recognition the Company received from the industry and Shareholders.

Looking forward to the second half of 2023, Recbio will continue to firmly focus on our strategic pipeline and expedite the pace of commercial application of our products as we forge ahead. We will continue to strengthen the innovative research and development of core technologies and key varieties, speed up management reform and enhance our core competitiveness and development potential. We will strive to expand cooperation at home and abroad, promote commercial application through various models on a global scale, leverage advanced vaccine technology to benefit more people and create greater value for Shareholders and investors!

Founder & Chairman of the Board of Recbio
Dr. LIU Yong

August 2023

創新研發能力是公司核心競爭力的表現。公司不斷加強創新疫苗管線及核心技術平台的預研，並將成果迅速轉化為知識產權佈局。公司針對重組呼吸道合胞病毒(RSV)疫苗、重組人單純疱疹病毒(HSV)疫苗、SARS-COV-2及其變種疫苗等項目共申請發明專利15件。在新型佐劑及其關鍵原輔料方面，公司共申請發明專利16件，其中1件已獲專利授權。

公司發揮新型佐劑平台領先優勢，與上游高校、科研院所和下游疫苗生產企業開展密切合作，賦能新型佐劑和疫苗產業鏈的技術進步和市場拓展。公司通過自主創新，開發出BFA07、BFA32等性能更佳的下一代新型佐劑，以持續改善疫苗免疫應答的強度、寬度、類型和免疫持久性。

正是憑借在創新型疫苗領域的技術創新成果及卓越表現，公司榮獲2022卓越影響力榜單—「年度最佳技術創新獎」。

在資本市場方面，公司獲選納入MSCI中國小型股指數成分股，凸顯了業界和股東們對公司的關注和認可。

展望2023年下半年，在砥礪前行的道路上，瑞科生物將繼續牢牢聚焦戰略級管線，加快產品商業化步伐。我們將一如既往加強核心技術和關鍵品種的創新研發，加速推進管理變革，增強企業核心競爭力和發展後勁。我們將努力拓展國內外合作，在全球範圍推進多種模式的商業化，讓先進疫苗科技惠及更廣大人羣，為股東和投資人創造更多價值！

瑞科生物創始人&董事會主席
劉勇博士

2023年8月

Financial Highlights

財務摘要

CONSOLIDATED STATEMENTS OF PROFIT OR LOSS 綜合損益及其他全面收益表 AND OTHER COMPREHENSIVE INCOME

		For the six months ended June 30, 截至6月30日止六個月	
		2023 2023年 RMB'000 人民幣千元 (Unaudited) (未經審核)	2022 2022年 RMB'000 人民幣千元 (Unaudited) (未經審核)
Other income and gains	其他收入及收益	59,929	78,593
Loss before tax	除稅前虧損	(276,941)	(357,117)
Loss for the period	期內虧損	(276,941)	(357,117)
Loss attributable to owners of the parent	母公司擁有人應佔虧損	(272,549)	(349,686)
Loss per share – Basic and diluted (RMB)	每股虧損 – 基本及攤薄(人民幣)	(0.57)	(0.75)

CONSOLIDATED STATEMENTS OF FINANCIAL POSITION 綜合財務狀況表

		As of 截至	
		June 30, 2023 2023年 6月30日 RMB'000 人民幣千元 (Unaudited) (未經審核)	December 31, 2022 2022年 12月31日 RMB'000 人民幣千元 (Audited) (經審核)
Total non-current assets	非流動資產總額	982,659	889,687
Total current assets	流動資產總額	1,262,601	1,419,920
Total current liabilities	流動負債總額	(316,164)	(328,983)
Net current assets	流動資產淨額	946,437	1,090,937
Total assets less current liabilities	資產總額減流動負債	1,929,096	1,980,624
Total non-current liabilities	非流動負債總額	(573,823)	(327,546)
Total equity	權益總額	1,355,273	1,653,078

Management Discussion and Analysis

管理層討論與分析

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.

業務回顧

概覽

我們是一家於2012年創立的疫苗公司，致力於創新型疫苗的研發及商業化，擁有高價值創新型疫苗組合，並由自主研發的技術所驅動。我們主要專注於HPV候選疫苗的研發。目前我們的疫苗組合有12款疫苗，包括我們的三款戰略級產品：REC603，一款重組HPV九價疫苗，目前處於III期臨床試驗階段；處於國內產品上市申請階段並獲得蒙古國緊急使用授權的一款重組雙組分新冠病毒疫苗ReCOV和已進入臨床研究階段的新佐劑重組帶狀疱疹疫苗REC610。

通過我們在此領域多年的投入與專注，我們開發了一個綜合疫苗創新引擎，包括新型佐劑平台、蛋白工程平台及免疫評價平台。該等平台使我們能夠不斷發現及開發創新型疫苗，在候選疫苗中應用先進技術。我們是少數幾家有能力研發新型佐劑的公司之一，能夠對標所有目前已獲得FDA批准的新型佐劑。我們的技術平台已形成「鐵三角」，在抗原設計及優化、佐劑的開發及生產以及確定抗原及佐劑的最佳組合方面形成協同效應。我們亦已建立IPD系統，使我們能夠同時推進多款候選疫苗的研發。遵循我們的疫苗開發理念，即機會、審慎、技術及知識產權（「OPTI」），我們已建立由12款候選疫苗組成的疫苗組合，從戰略角度將覆蓋範圍擴展至世界衛生組織於2019年發佈的DALYs評估的《全球疾病負擔》中負擔最重的10大疾病中的5種，以及2020年全球最暢銷的5種疫苗產品中的3種所覆蓋的疾病領域。

Management Discussion and Analysis 管理層討論與分析

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.

我們已在早期階段開始建立我們的生產能力，旨在確保我們的候選疫苗順利轉化為成功的商業化疫苗產品。我們正於江蘇省泰州市建設我們的HPV疫苗生產基地，一期的設計產能為每年2,000萬劑HPV九價疫苗。此外，我們已於2021年11月完成了重組新冠病毒疫苗ReCOV的GMP標準生產基地的建設，順利取得由江蘇省藥監局頒發的生產許可證。2022年4月，該生產基地獲得由歐盟質量授權人(QP)簽發的符合性聲明，標誌著本公司泰州生產基地和質量管理體系符合歐盟GMP標準。該生產基地總建築面積約為17,000平方米，該基地亦可用於生產新佐劑重組帶狀疱疹疫苗。

Management Discussion and Analysis 管理層討論與分析

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 Latest Practicable Date, 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.

我們的疫苗管線

我們的疫苗組合戰略性地覆蓋了全球六個具有重大負擔的疾病領域，包括HPV、新冠病毒傳染病、帶狀疱疹、成人結核病、流感及手足口病。截至最後實際可行日期，我們的疫苗組合包括12款候選疫苗。特別是，正在中國進行III期臨床試驗的REC603（一款重組HPV九價候選疫苗），處於國內產品上市申請階段並獲得蒙古國緊急使用授權的一款重組雙組分新冠病毒疫苗ReCOV和已進入臨床研究階段的新佐劑重組帶狀疱疹疫苗。

The following table summarizes our vaccine pipeline as of the Latest Practicable Date.

下表概述截至最後實際可行日期我們的疫苗管線。

Diseases 病症	Candidates 候選產品	Type of Vaccine 疫苗類型	Adjuvant Systems 佐劑系統	Product Rights 產品權益	Commercial Rights 商業權	R&D Status 研發進程					Future Milestone 未來的里程碑
						Pre-clinical 臨床前	IND Filing IND申報	Phase I I期臨床	Phase II II期臨床	Phase III III期臨床	
Cervical Cancers & Genital Warts 宮頸癌 & 生殖器疣	REC603	Recombinant HPV 9-valent vaccine 重組九價HPV疫苗	★ Alum 鋁佐劑	Self-developed 自主研發	Global 全球	[Progress bar from Pre-clinical to Phase III]					Expected to submit BLA application in 2025 預計2025年提交BLA申請
	REC601	Recombinant HPV bivalent (Types 16/18) vaccine 重組二價(16/18) HPV疫苗	Alum 鋁佐劑	Self-developed 自主研發	Global 全球	[Progress bar from Pre-clinical to Phase II]					
	REC602	Recombinant HPV bivalent (Types 6/11) vaccine 重組二價(6/11) HPV疫苗	Alum 鋁佐劑	Self-developed 自主研發	Global 全球	[Progress bar from Pre-clinical to Phase II]					
	REC604a	2nd-generation recombinant HPV quadrivalent vaccine 第二代重組四價HPV疫苗	BFA04	Self-developed 自主研發	Global 全球	[Progress bar from Pre-clinical to Phase I]					
	REC604b	2nd-generation recombinant HPV 9-valent vaccine 第二代重組九價HPV疫苗	Undisclosed novel adjuvant 未披露新型佐劑	Self-developed 自主研發	Global 全球	[Progress bar from Pre-clinical to Phase I]					
COVID-19 新冠病毒傳染病	ReCOV	Recombinant COVID-19 vaccine 重組新冠病毒疫苗	BFA03	Co-developed 合作研發	Global 全球	[Progress bar from Pre-clinical to Commercialization]					
	RS20A	mRNA COVID-19 Vaccine mRNA新冠病毒疫苗	-	Co-developed 合作研發	Global 全球	[Progress bar from Pre-clinical to Phase I]					
Shingles 帶狀疱疹	REC610	Recombinant shingles vaccine 重組帶狀疱疹疫苗	BFA01	Self-developed 自主研發	Global 全球	[Progress bar from Pre-clinical to Phase II]					
Adult TB 成人結核病	REC607	Virus vectored adult TB vaccine 成人結核病毒載體疫苗	-	License-in 許可引進	Global 全球	[Progress bar from Pre-clinical to Phase I]					
	REC606	Recombinant adult TB vaccine 重組成人結核病疫苗	BFA01	Self-developed 自主研發	Global 全球	[Progress bar from Pre-clinical to Phase I]					
Flu 流感	REC617	Recombinant influenza quadrivalent vaccine 重組四價流感疫苗	BFA03	Self-developed 自主研發	Global 全球	[Progress bar from Pre-clinical to Phase I]					
HFMD 手足口病	REC605	Recombinant HFMD quadrivalent vaccine 重組四價手足口病疫苗	Alum 鋁佐劑	Self-developed 自主研發	Global 全球	[Progress bar from Pre-clinical to Phase I]					

★ Core Product
核心產品

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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 multi-centre 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 Latest Practicable Date, 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.

註：

1. 核心產品HPV九價疫苗REC603於2018年7月獲得國家藥監局傘式IND批准。傘式IND批准覆蓋REC603臨床試驗的所有3個階段(即I期、II期及III期)。根據與國家藥監局藥品審評中心的溝通，國家藥監局並不反對我們直接在中國進行III期臨床試驗。因此，本公司並無對REC603進行任何II期臨床試驗。
2. 新冠病毒疫苗ReCOV目前正在俄羅斯和尼泊爾開展國際多中心III期試驗，並在中國同步開展人種免疫原性橋接及序貫加強I/II期、研究者發起的研究(IIT)。本公司當前已向中國監管當局滾動提交產品上市申請並已獲得蒙古國緊急使用授權。ReCOV由本集團聯合中科院生物物理所王祥喜教授課題組共同設計開發。
3. 新佐劑重組帶狀疱疹疫苗REC610目前正在菲律賓開展I期試驗，其中國臨床試驗申請已獲得受理，自受理之日起60日內，未收到國家藥監局藥品審評中心否定或質疑意見的，本公司可以按照提交的方案開展臨床試驗。
4. REC607技術專利自上海市公衛生臨床中心、ID Pharma Co., Ltd.及上海賽墨生物技術有限公司許可引進。
5. 在研產品所用的佐劑系統均由本公司自主研發。
6. R520A是一款由武漢瑞科吉(與業務夥伴為mRNA疫苗的研發及商業化成立的一家合營企業)開發的mRNA新冠病毒候選疫苗。截至最後實際可行日期，本公司擁有武漢瑞科吉的55%股權，武漢瑞科吉擁有本公司與深圳瑞科吉未來就所有傳染病疫苗產品的所有權益。

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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.

HPV疫苗管線

HPV是最常見的生殖道病毒病原體。儘管HPV感染可能在數個月內毋須進行任何干預便可消失，但若干類型的感染仍可持續並發展為宮頸癌。該等高危型HPV感染主要由16型、18型、31型、33型、45型、52型及58型HPV引起，導致了全球約90%宮頸癌病例。普遍認為，HPV疫苗在消除宮頸癌方面可發揮重要作用，因為其可預防若干高危類型的HPV感染。此外，肛門、外陰、陰道及口咽的一些癌症及大多數生殖器疣可通過HPV疫苗來預防。

REC603 – III期HPV九價疫苗 – 我們的核心產品

REC603乃我們的核心產品，旨在提供針對HPV6型、11型、16型、18型、31型、33型、45型、52型及58型的保護。預期REC603將成為國內首批獲批及商業化的國產疫苗之一。

臨床試驗概述：我們於2018年7月聯合申請並取得REC603的傘式IND批准。傘式IND批准涵蓋臨床試驗的所有三個階段（即I期、II期及III期）。於2019年3月，我們開始於中國進行REC603的I期臨床試驗。我們於2020年7月在中國完成REC603的I期臨床試驗。根據與國家藥監局藥品審評中心的溝通，國家藥監局並不反對我們直接在中國進行III期臨床試驗。因此，我們並無對REC603進行任何II期臨床試驗。

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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 Latest Practicable Date. 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.

國家藥監局藥品審評中心於2023年7月發佈《人乳頭瘤病毒疫苗臨床試驗技術指導原則（試行）》（《**指導原則**》），《指導原則》明確指出，隨機、雙盲、安慰劑對照設計仍是目前確證第一代疫苗保護效力的最佳策略。我們目前正在中國進行III期臨床試驗。該中國III期臨床試驗由主效力試驗、小年齡組免疫橋接試驗、與Gardasil®9免疫原性比較試驗三部分組成，採用多中心、隨機、盲態、平行對照設計，受試者總樣本量為16,050例。本公司已於最後實際可行日期已完成REC603的小年齡組免疫橋接、及與Gardasil®9免疫原性比較兩項研究的三劑接種工作。同時，REC603主效力試驗的受試者正在按照臨床方案開展隨訪工作。我們已完成第18個月訪視，正在進行第24個月的訪視觀察。我們將採取病理學終點進行期中分析，滿足條件後計劃於2025年向國家藥監局提交BLA申請。自在中國獲得IND批准以來，概無發生與REC603有關的重大意外或不利益變動。

REC603的優勢：我們認為，REC603具有多種優勢，包括：

積極的免疫原性。 REC603在其I期臨床試驗中顯示了積極的免疫原性。總體而言，我們觀察到針對所有目標HPV類型的NAb GMT水平有顯著增加。



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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.

高產、穩產的HPV病毒樣顆粒。REC603採用漢遜酵母表達系統。一般來說，來自不同表達系統的病毒樣顆粒在結構及表位上與天然HPV殼衣均高度類似，以在接種疫苗後觸發免疫應答（包括漢遜酵母表達系統所產生的免疫應答）。漢遜酵母是一種甲基營養型酵母菌，能在簡單培養基上快速生長至非常高的細胞密度，並可耐受相對較高的生長溫度。與釀酒酵母相比，漢遜酵母的甲醇利用途徑啟動子強勁且可調、分泌量高、糖基化水平低等特性適合醫用重組蛋白的生產。將高拷貝表達盒整合到穩定的漢遜酵母基因組中，實現了HPV病毒樣顆粒的高產及穩定表達，使我們的候選疫苗更適合商業化生產。

良好的安全性。REC603的I期臨床試驗所示，REC603安全且耐受良好。疫苗組與安慰劑組之間的不良事件發生率並無統計學差異。儘管目前並無可獲得的公開文件報告透過對比國產HPV疫苗及國外HPV疫苗所進行的頭對頭臨床試驗，但於2009年，Merck Sharp & Dohme進行的Gardasil 9臨床試驗中，疫苗隊列所招募受試者的副作用發生率為86.6%，而在REC603的I期臨床試驗所觀察數據為53.75%。¹主要不良反應為預期發熱及注射部位疼痛，且多為暫時性的輕度症狀。

可擴展的生產潛力。我們在HPV病毒樣顆粒方面的專利技術結合優化的發酵策略及純化工藝，使我們能夠在批量生產中實現穩定的高產量。憑藉明確的關鍵工藝參數，REC603可輕鬆擴展生產規模，以滿足國內及全球市場的需求。

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.

1. 上述信息來源於針對不同疫苗進行的多項臨床試驗，並無對照、頭對頭臨床研究的支持，而許多因素（包括不同試驗中採用的不同受試者入組標準、受試者的不同人群特徵、醫生的接種技能與經驗以及受試者的生活方式）可能影響相關臨床結果，並可能導致交叉試驗比較結果的意義甚微。

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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.

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.

機會及潛力：我們相信，考慮到下述因素，我們的HPV候選疫苗存在著巨大的機會：

*HPV九價疫苗的優越性。*一般來說，HPV九價疫苗可以對90%的宮頸癌及90%的肛門及生殖器疣提供保護，因此是最值得推薦的HPV保護疫苗。然而，就本公司經參考獨立市場研究後所深知及盡悉，目前中國僅批准了一款HPV九價疫苗，而於更多HPV九價疫苗在中國獲批准後，預期將佔據更大的中國市場份額。

*中國HPV九價疫苗市場供應嚴重不足。*就本公司經參考獨立市場研究且即使考慮到HPV疫苗接種率的預期增長後所深知及盡悉，於2025年將仍有233.9百萬名9至45歲的女性未接種HPV疫苗，意味著合共有701.7百萬支的潛在需求量。此外，可感染女性的HPV血清型亦可感染男性。研究亦顯示，男性HPV感染率與女性相近。因此，我們認為中國的HPV疫苗市場供應一直並將繼續嚴重不足。



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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.

*國產替代。*就本公司經參考獨立市場研究後所深知及盡悉，儘管首款進口HPV二價疫苗已於2016年在中國獲批准，而首款國產HPV二價疫苗於2019年方獲批准，但其憑藉成本效益在上市第一年的產值就佔據66.7%的中國HPV二價疫苗市場。我們相信，考慮到國產疫苗產品傾向於追求與全球同行相比更有利的價格，中國的HPV九價疫苗在獲批准後將跟隨類似趨勢。近年來，中國政府亦已頒佈政策，支持國產HPV疫苗廠商。例如，於2019年，中華人民共和國國家健康衛生委員會發佈了《健康中國行動－癌症防治實施方案(2019-2022年)》，宣佈加快國產HPV疫苗的審批流程及提高HPV疫苗的普及程度。作為國內少數幾家擁有處於III期階段的HPV九價候選疫苗的公司，我們相信我們日後將受惠於該等有利的政府政策。

*與進口疫苗同樣的年齡適用範圍。*2022年8月30日，中國市場上現有HPV九價疫苗擴齡至9至45歲的女性。於2021年，我們的核心產品REC603亦已開始III期臨床試驗，適用於9至45歲的女性，表明在年齡方面較當前獲批准疫苗有著同樣的年齡適用範圍。

*正在開發的下一代HPV疫苗。*我們還在開發伴新型佐劑的下一代HPV四價及九價候選疫苗，其設計採用兩針方案，且並無損害候選疫苗效果／安全性，與目前商業化的產品相比有潛在的優勢，乃由於彼等均採用三針方案。

考慮到本公司於中國國內累積的III期臨床試驗樣本量，以及在HPV感染率較高的臨床地點進行試驗的決定，預期REC603將成為國內首批獲批及商業化的國產疫苗之一。

Management Discussion and Analysis

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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.

上市規則項下第18A.08(3)條規定的警示聲明：我們無法保證我們最終將能成功開發或銷售我們的核心產品。本公司股東及潛在投資者於買賣本公司股份時務請審慎行事。

REC601 – I期HPV二價(16/18型)疫苗

二價候選疫苗是為具有不同負擔能力的人群設計的HPV保護解決方案，有可能被納入中國及其他司法管轄區的國家疫苗接種機制。由於HPV二價疫苗的成本優勢，其有可能成為發展中國家的主流疫苗。

我們正在開發一款針對HPV16型及18型（大部分宮頸癌病例的主要病因）的二價HPV候選疫苗（即REC601）。目前，我們已完成中國I期試驗的數據評估與分析工作。該I期試驗數據顯示，REC601在9-45歲健康女性中表現出良好的安全性和免疫原性。未發生與研究疫苗有關的4級及以上不良事件，也未發生嚴重不良事件。全程免後30天時：HPV16型和18型抗體陽性率均達到100.00%，免前陰性人群在全程免後也均達到陽轉（陽轉率100.00%）。HPV16型和18型抗體水平也大幅提高：HPV16型抗體GMT較免前增長了632.99倍，HPV18型抗體GMT較免前增長了1,194.02倍。REC601採用了與重組HPV九價疫苗相似的技術工藝路線。

REC602 – I期HPV二價(6/11型)疫苗

我們亦在研發REC602（一款針對HPV6/11型的二價HPV候選疫苗），我們已在2022年底完成I期試驗。REC602採用了與重組HPV九價疫苗相似的技術工藝路線。



Management Discussion and Analysis 管理層討論與分析

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 Latest Practicable Date, 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.

REC604a及REC604b – 早期HPV疫苗(使用新型佐劑配制)

在我們強大的技術平台的支持下，我們正探索研發使用新型佐劑配制的HPV疫苗(即REC604a及REC604b)。與我們目前使用的傳統鋁佐劑不同，我們正就下一代九價及四價HPV疫苗開展早期研發，並配制了自主開發的新型佐劑。根據現有研究，相較於Merck的Gardasil，GSK的Cervarix(使用AS04佐劑)在臨床試驗中的中和抗體滴度更高，體現出了更強的交叉保護效力，這表明新型佐劑可以增強HPV疫苗的免疫原性。由於引入新型佐劑使REC604a及REC604b的免疫原性增強，因此設計採用兩針劑方案。REC604a搭載本公司自主研發的新型佐劑BFA04，臨床前研究表明，與採用鋁佐劑相比，BFA04佐劑可提高中和抗體7.7倍。在小鼠中進行的動物研究中，兩次給藥的REC604a與三次給藥的Gardasil相比，在血清中和抗體GMT水平和免疫持久性方面表現出非劣效性。截至最後實際可行日期，我們已獲得REC604a的中國臨床試驗默示許可。

新冠病毒疫苗

自2019年底以來，新冠肺炎疫情對中國乃至全球的社會及經濟造成毀滅性影響。據世界衛生組織數據儀表板報告，新冠肺炎已造成全球範圍內超過6百萬人死亡，並仍在繼續蔓延。安全有效的疫苗對控制新冠肺炎疫情至關重要。我們目前正在開發兩款新冠病毒疫苗。

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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.

ReCOV – 處於產品上市申請階段的新冠病毒候選疫苗

臨床試驗概述：就重組新冠病毒疫苗ReCOV而言，我們已完成新西蘭I期臨床試驗，菲律賓和阿拉伯聯合酋長國針對基礎免疫和序貫加強免疫的II期臨床研究。2022年11月，ReCOV已取得菲律賓基礎免疫和序貫加強免疫II期、阿聯酋序貫加強免疫II期研究的積極數據，ReCOV國際多中心III期臨床試驗已完成首批受試者入組。特別的，我們在菲律賓序貫加強II期研究發現，在已完成滅活疫苗基礎免疫的人群中，ReCOV序貫加強誘導的針對奧密克戎變異株BA.5、BA.2、BF.7、BA.2.75的中和抗體水平均顯著優於輝瑞mRNA疫苗組（差異有統計學意義）。基於上述積極的研究結果，我們於2023年3月在蒙古國獲得ReCOV緊急使用授權，該產品是我國自主研發的首個在海外獲批的新型佐劑重組亞單位新冠病毒疫苗。ReCOV獲得蒙古國緊急使用授權，有利於本集團拓展海外市場，提升本集團海外品牌知名度，推動本集團國際化戰略，對其他國家和地區的註冊推動起到積極作用。

ReCOV的優勢：*我們認為，我們的ReCOV具有以下優勢：*

廣譜性強。ReCOV使用優化抗原（屬NTD-RBD-foldon三聚體），由CHO細胞高度表達，且搭載公司自主研發的新型佐劑BFA03。ReCOV中和抗體產生速度快，呈Th1傾向性細胞免疫。針對原型株及多種奧密克戎變異株誘導了持久的廣泛交叉中和抗體，中和抗體水平較輝瑞mRNA疫苗、國藥滅活疫苗均實現優效。

良好的安全性特徵。基礎免疫與序貫加強免疫研究均顯示良好安全性。成年組與老年組TEAE發生率相近，20µg與40µg組TEAE發生率相近。



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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 Biotechnology Co., Ltd. (“**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 Latest Practicable Date, 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.

可及性優勢顯著。產能可快速擴展且供應鏈自主；產品高度穩定。採用自主開發佐劑，產能巨大且供應鏈自主，無需依賴國外廠商；採用CHO細胞一次性培養工藝，產量高且可迅速擴產；室溫下存放至少6個月仍符合質量標準，2°C -8°C 穩定24個月以上。

平台可拓展性。基於我們的呼吸道疫苗技術（BFA03新佐劑+CHO表達系統）體系下，在第一代疫苗基礎上可快速研發針對變異株的改良型疫苗或新冠與流感等上呼吸道聯合疫苗。

R520A – I期mRNA新冠病毒疫苗

於2021年8月，我們與包括深圳市瑞吉生物科技有限公司（「**深圳瑞吉**」）在內的業務夥伴成立一家合營企業（即武漢瑞科吉），以進行mRNA疫苗的研發及商品化。作為該合作的第一步，我們正在開發一款進入臨床研究階段mRNA新冠病毒候選疫苗R520A，該疫苗專門針對奧密克戎變種病毒。R520A採用自行開發的凍乾技術。通過這種方法，我們可以有效地維持mRNA-LNP的理化性質和生物活性，並在2°C -8°C下實現長期儲存。我們目前已獲得菲律賓國家食品藥品監督管理局的臨床試驗批准。截至最後實際可行日期，該產品已在菲律賓、新西蘭和中國香港取得臨床試驗批件。在國際學術期刊Cell Discovery (IF: 38)發表題為「Lyophilized mRNA-lipid nanoparticle vaccines with long-term stability and high antigenicity against SARS-CoV-2」的論文，報道針對SARS-CoV-2不同變異株的凍乾型脂質納米顆粒疫苗。

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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 Latest Practicable Date, 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®.

帶狀疱疹疫苗產品

REC610 – 處於I期臨床階段的重組帶狀疱疹候選疫苗

我們於2022年12月取得新佐劑重組帶狀疱疹疫苗 REC610的菲律賓臨床試驗批件，並於2023年2月完成首批受試者入組。該臨床研究是一項隨機、觀察者盲、葛蘭素史克Shingrix®為陽性對照的I期臨床試驗，以評價REC610在40歲及以上健康成人受試者中的安全性和免疫原性。截至最後實際可行日期，菲律賓I期臨床研究進展順利，所有受試者已完成兩劑疫苗接種後30天隨訪，且安全性與耐受性良好。REC610中國臨床試驗申請已獲得受理，自受理之日起60日內，未收到國家藥監局藥品審評中心否定或質疑意見的，本公司可以按照提交的方案開展臨床試驗。

帶狀疱疹是由潛伏在體內的水痘—帶狀疱疹病毒 (VZV)再激活而引起的一種急性感染性皮膚疾病。帶狀疱疹尚無特效藥，接種疫苗是預防帶狀疱疹的有效手段。根據全球已上市的帶狀疱疹疫苗研究數據，相比減毒活疫苗，新佐劑疫苗能提供更強的細胞免疫和保護效力。REC610搭載由本公司自主研发的新型佐劑BFA01，可促進產生高水平的VZV糖蛋白E(gE)特異性CD4+T細胞和抗體。臨床前研究顯示，REC610具有較好的免疫原性，可誘導產生高水平的gE抗原特異性CD4+T細胞反應和IgG抗體，其免疫應答非劣於對照疫苗Shingrix®。

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TB Vaccine Pipeline

REC607 – Early-stage Virus Vected 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.

結核病疫苗管線

REC607 – 早期病毒載體成人結核病候選疫苗

我們與上海市公共衛生臨床中心簽訂了技術轉讓協議，據此，我們獲得了REC607（一款病毒載體成人結核病候選疫苗）全球獨家開發權的專有技術及專利。該項目於2018年被認定為國家科技重大專項課題。我們目前正在對成人載體疫苗進行臨床前研發。

REC606 – 早期重組成人結核病候選疫苗

我們亦正在進行重組成人結核病疫苗（即REC606）的早期研究。我們自主研發的REC606同時使用蛋白工程平台及新型佐劑技術平台，這兩個平台均有潛力產生更好的安全性及免疫應答。

其他疾病領域

REC617 – 早期重組四價流感候選疫苗

我們正在開發REC617（一種早期的重組四價流感疫苗），並正在開發新型佐劑以增強耐受性、免疫原性、保護時間及交叉保護能力。

REC605 – 早期手足口四價候選疫苗

我們正在利用我們的蛋白工程技術開發一款多價手足口疫苗（即REC605），具有更高的EV71、CA16、CA10及CA6血清型覆蓋率及更強的保護作用。

Management Discussion and Analysis

管理層討論與分析

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.

我們的技術平台

我們開發了三個先進的技術平台，用於新型佐劑開發、蛋白工程及免疫評價。該等平台使我們能夠不斷發現及開發亞單位疫苗，在候選疫苗中應用先進技術。

新型佐劑平台

佐劑是與抗原結合使用的物質，以協助抗原呈遞及增強免疫應答。按慣例，僅鋁佐劑被廣泛用於人用疫苗。自21世紀初，新型佐劑逐漸在疫苗行業得到廣泛應用，創造出能夠激發更多、更廣泛免疫應答的疫苗產品。目前，有五種新型佐劑（即AS01、AS03、AS04、CpG1018及MF59）應用於獲FDA批准的人用疫苗，相關成分已在公共領域存在逾20年。通過該平台，我們成為少數幾家能夠開發對標上述所有獲FDA批准的該等佐劑的公司之一。憑藉該項能力，我們無需依賴任何特定佐劑供貨商。此外，我們的平台亦使我們能夠在下一代候選疫苗中發現及應用新型佐劑。

蛋白工程平台

我們的蛋白工程平台採用基於結構的免疫原設計方式，為基於跨學科研究的亞單位疫苗開發提供抗原優化解決方案。該平台使我們可以快速靶向及制備病原體衍生抗原，以確定抗原性的結構基礎、了解免疫保護機制並指導合理的免疫原設計，此乃我們進行疫苗開發的關鍵步驟。此外，我們的蛋白工程平台可在不同的表達系統中引起免疫應答，包括大腸桿菌、漢遜酵母、桿狀病毒及CHO細胞表達系統等。通過該多樣化表達系統，我們能夠在疫苗開發中選擇及應用最合適的表達系統。通過該平台，我們能夠快速推進新冠病毒及HPV候選疫苗的開發。

Management Discussion and Analysis

管理層討論與分析

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 Latest Practicable Date, 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 R&D.

免疫評價平台

為闡明新發及再發傳染病的免疫保護機制，免疫評價是發現及開發亞單位疫苗的關鍵步驟。通過該平台，我們可以選擇最佳的抗原及佐劑組合，進而提高候選疫苗的免疫原性。免疫評價過程涉及免疫學、生物學、分子生物學及臨床化學等多個學科。我們的核心科技團隊早在2004年就開始搭建免疫評價平台，我們成為中國最早擁有該平台的團隊之一。通過該平台，我們成為中國首批能夠開展假病毒中和、ELISPOT及ICS檢測的公司之一，該等檢測已被用於我們的候選疫苗開發。

研發

研發是我們持續成功的關鍵。我們的核心科學團隊於疫苗產品的研發及商業化方面擁有20多年的經驗，其中包括在中國疾控中心的工作經驗。截至最後實際可行日期，我們的內部研發團隊由超過100名的人才組成，其中大部分擁有免疫學、病原生物學、臨床醫學或其他相關領域的碩士或博士學位。受益於我們的IPD系統，我們的研發團隊包括四個不同的產品開發團隊，即疫苗創新核心團隊、工藝研究核心團隊、綜合研發核心團隊及研發質量核心團隊。我們的研發團隊主要分佈在北京研發中心和泰州研發基地，負責疫苗的全週期研發。

Management Discussion and Analysis

管理層討論與分析

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.

我們的IPD系統為我們的研發活動奠定了堅實的基礎。IPD系統管理候選疫苗的全生命週期。我們對疫苗開發初期的候選疫苗進行市場需求分析。此類分析將作為我們疫苗開發計劃的基礎，以確保我們的疫苗產品能夠滿足市場需求。此外，根據我們的IPD系統，我們將研發資源分配至各研發項目。由於疫苗開發涉及複雜和多學科的過程，我們將為每個疫苗開發項目指派一名專屬的項目經理，並建立一個由技術平台及相關部門（包括臨床和監管事務、生產、質量控制和質量保證等部門）僱員組成的產品開發團隊。此外，我們的管理團隊負責研發過程中關鍵點的關鍵決策和技術評審，以確保研發能夠滿足我們的研發方案及適用的法律及質量要求。通過IPD系統，我們能夠同時推進多個疫苗開發項目。

我們開發了三個先進的技術平台，用於新型佐劑開發、蛋白工程及免疫評價。該等平台使我們能夠不斷發現及開發亞單位疫苗，在候選疫苗中應用先進技術。我們的技術平台形成了「鐵三角」，在抗原設計及優化、佐劑的開發及生產以及確定抗原及佐劑的最佳組合方面形成了協同效應。在該等平台的支持下，我們已開發多款候選疫苗。我們不斷升級我們的技術平台以進一步豐富我們的研發手段，並認為該等技術平台將繼續推動我們疫苗開發向前發展。

截至2023年6月30日止六個月，我們的研發總成本為人民幣248百萬元，同期，我們並無資本化任何研發成本。

Management Discussion and Analysis

管理層討論與分析

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.

生產及商業化

我們的研發活動主要於北京研發中心及泰州總部進行。我們的北京研發中心配備了一個主要用於IND前工藝開發的中試車間以及擁有總建築面積約為4,000平方米的疫苗研發實驗室。我們的泰州總部研發基地總建築面積約為3,800平方米，有四個中試車間，主要用於生產我們的臨床試驗樣品及工藝開發。我們的研發基地亦可以支持新型佐劑的生產及開發。我們臨床試驗所用的多數候選疫苗均已由我們的內部生產團隊生產，包括我們的HPV疫苗管線。

預期我們處於臨床階段候選疫苗的市場需求龐大，我們已經開始為候選疫苗的商業化生產做準備。我們正於江蘇省泰州市建設我們的HPV疫苗生產基地，其一期設計峰值產能為每年2000萬劑HPV九價疫苗。此外，我們於2021年11月在江蘇省泰州完成了ReCOV的GMP標準生產基地的建設，取得由江蘇省藥監局頒發的疫苗生產許可證。該生產基地總建築面積約為17,000平方米，亦可用於生產重組帶狀疱疹疫苗。於2022年4月9日，泰州的ReCOV生產基地獲得由歐盟質量授權人(QP)簽發的符合性聲明。

我們已聘用第三方合約生產機構及製造商為我們的臨床試驗生產疫苗樣本，旨在實現一個高效和更具成本效益的流程。我們亦採取了嚴格的程序，以確保我們的合約生產機構的設施及生產資質符合相關的監管要求，我們所有的合約生產機構都獲得了GMP認證。我們根據資質、相關專業知識、製造能力、業績記錄及合約條款，挑選少數行業領先的第三方合約生產機構。

Management Discussion and Analysis

管理層討論與分析

As of the Latest Practicable Date, 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.

截至最後實際可行日期，我們僅有一款新冠病毒疫苗獲批蒙古國緊急使用授權。我們已為處於臨床階段的候選疫苗（即HPV疫苗、新冠病毒疫苗及重組帶狀疱疹疫苗）制定了明確的商業化戰略。我們目前正在建設銷售團隊及國際業務開發團隊，為候選疫苗國內和國際市場的商業化進行銷售渠道和終端建設。營銷團隊未來將負責本公司產品在中國的銷售及學術推廣活動，國際業務開發團隊計劃與外國政府、跨國公司、公民社會組織及國際組織合作，來實現本公司產品在海外的商業化。

知識產權

作為專注於重組疫苗產品研發及商業化的公司，我們認為知識產權對我們的業務至關重要。我們在中國及主要司法權區積極尋求對我們候選疫苗的專利保護，並適時提交額外專利申請，以涵蓋若干抗原、毒株、蛋白質、配方及生產工藝。為保護我們的技術及產品，我們已擁有了一個大規模的知識產權組合。截至2023年6月30日，我們已註冊11項發明專利並提交103項專利申請（100項中國專利申請，以及3項PCT專利申請）。特別地，我們不斷加強創新疫苗的自主知識產權佈局。其中，基於蛋白工程平台和mRNA技術平台，我們針對重組人單純疱疹病毒疫苗(HSV)、SARS-COV-2及其變種疫苗、和呼吸道合胞病毒疫苗(RSV)項目共申請有關抗原的15件發明專利。基於新型佐劑平台，我們針對在佐劑關鍵原料等方面共申請發明專利16件，其中獲得1件新型佐劑授權專利。截至2023年6月30日止六個月，我們並未以申索人或被告身份牽涉到有關侵犯任何知識產權的任何訴訟（可能構成威脅或待決），亦並未收到任何相關索償的通知。

Management Discussion and Analysis

管理層討論與分析

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 Latest Practicable Date, 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.

僱員及薪酬

截至2023年6月30日，本集團擁有434名僱員，所有僱員均位於中國。截至2023年6月30日止六個月，本集團發生的員工成本（列為我們的行政開支、研發成本和銷售及分銷開支的一部分）總額為人民幣116百萬元，而截至2022年6月30日止六個月為人民幣101百萬元。我們員工的薪酬待遇包括薪資及其他激勵，通常由其資歷、行業經驗、職位和績效釐定。我們根據內部程序為所有僱員進行新僱員培訓，以及專業及安全培訓計劃。我們在所有重大方面遵守適用中國法律法規的規定向社會保險及住房公積金作出供款。我們亦與關鍵管理人員及研發人員訂立標準的保密、知識產權轉讓及不競爭協議，該等協議通常包括標準的不競爭協議，以禁止僱員於僱傭期間及離職後兩年內直接或間接與我們競爭。僱員亦簽署有關僱傭期間職務發明及發現的確認書。

業務前景

未來，我們計劃利用我們的優勢實施以下策略，我們相信，我們將進一步加強我們的核心競爭優勢，使我們能夠把握不斷上升的商機：

- 加快我們候選疫苗的研發、臨床試驗及商業化；
- 繼續加強我們的研發能力；
- 改進我們的組織結構及人力資源管理，以提升我們的競爭力；及
- 通過「走出去」及「引進來」戰略推進國際化戰略。

自2023年6月30日起及直至最後實際可行日期，我們已就候選疫苗進行進一步臨床試驗，而就我們所知，中國的整體經濟及市場狀況或我們經營所在行業的狀況並無發生可能對我們的業務營運及財務狀況造成重大不利影響的變動。

Management Discussion and Analysis

管理層討論與分析

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 report.

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.

財務回顧

以下討論乃基於本報告他處所載財務資料及附註並應與之一併閱讀。

經營業績的主要項目分析

其他收入及收益

我們的其他收入及收益由截至2022年6月30日止六個月的人民幣79百萬元減少24%至截至2023年6月30日止六個月的人民幣60百萬元，主要是由於匯兌收益較同期減少人民幣36.6百萬元，利息收入較同期增加人民幣17.7百萬元。

銷售及分銷開支

我們的銷售及分銷開支由截至2022年6月30日止六個月的人民幣4百萬元增加至截至2023年6月30日止六個月的人民幣5百萬元，主要是由於產品商業化進展，行銷部門增加人員，相應人工成本及日常開支增加。

研發成本

我們的研發成本由截至2022年6月30日止六個月的人民幣354百萬元減少30.00%至截至2023年6月30日止六個月的人民幣248百萬元。該研發成本減少乃由於下列各項所致：

- 臨床試驗開支由截至2022年6月30日止六個月的人民幣179百萬元減少人民幣74百萬元至截至2023年6月30日止六個月的人民幣105百萬元，主要是由於我們的核心產品REC603已處於III期臨床試驗中期隨訪階段及ReCOV已進入III期臨床末期數據收集階段，臨床投入較前期下降；
- IND前開支由截至2022年6月30日止六個月的人民幣64百萬元減少人民幣51百萬元至截至2023年6月30日止六個月的人民幣13百萬元，主要是由於本公司三大重點管線的前期研發已基本完成，目前均已進入臨床階段，其他管線產品多數處於預研階段。

Management Discussion and Analysis

管理層討論與分析

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.

行政開支

我們的行政開支由截至2022年6月30日止六個月的人民幣77百萬元增加至截至2023年6月30日止六個月的人民幣78百萬元。

其他開支

我們的其他開支由截至2022年6月30日止六個月的人民幣0元增加至截至2023年6月30日止六個月的人民幣142千元，主要是由於瀋陽藥科大學「瑞科生物啟航」獎學金捐贈款。

財務成本

我們的財務成本由截至2022年6月30日止六個月的人民幣1百萬元增加至截至2023年6月30日止六個月的人民幣5百萬元，主要是由於因研發項目及產業化的推進，我們取得了更多的債務融資。

財務狀況主要項目分析

物業、廠房及設備

我們的物業、廠房及設備主要包括(i)租賃物業裝修；(ii)廠房及機器；(iii)家具及裝置；(iv)計算機及辦公室設備；(v)汽車；及(vi)在建工程。我們的物業、廠房及設備由截至2022年12月31日的人民幣559百萬元增加至截至2023年6月30日的人民幣618百萬元，主要由於本期新增了一些機器設備，為本公司未來產業化和研發所需，金額昂貴，此外由於江蘇瑞科HPV產業化基地疫苗樓、質檢樓的淨化裝修工程建設力度逐漸加大，在建工程也有明顯增加。

Management Discussion and Analysis

管理層討論與分析

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.

使用權資產

我們的使用權資產指(i)租賃土地，即租賃原使用權為50年的HPV疫苗生產基地的土地使用權；及(ii)租賃物業，即租賃ReCOV生產基地及租賃我們的辦公大樓及實驗室。我們的使用權資產由截至2022年12月31日的人民幣73百萬元減少至截至2023年6月30日的人民幣64百萬元，主要是由於經營戰略方向有所改變，因此對於北京安百勝的部分租賃物採取了提前退租。

其他非流動資產

我們的其他非流動資產主要指我們的定期存款以及就購買物業、廠房及設備的預付款項。我們的其他非流動資產由截至2022年12月31日的人民幣216百萬元增加至截至2023年6月30日的人民幣247百萬元，主要是由於產業化不斷推進，生產設備以及與工廠、產業化基地相關的裝修合同增多，使得預付的工程及設備款項大幅增加。

預付款項、其他應收款項及其他資產

我們的預付款項、其他應收款項及其他資產由截至2022年12月31日的人民幣39百萬元增加至截至2023年6月30日的人民幣122百萬元，主要是由於隨著HPV項目臨床進度的推進，我們購買了更多的原材料用於工藝驗證，支付更多的材料預付款。

現金及銀行結餘

我們的現金及銀行結餘由截至2022年12月31日的人民幣1,325百萬元減少至截至2023年6月30日的人民幣1,099百萬元，主要由於我們購買研發服務、原材料、設備、產業化建設及行政開支所致。

Management Discussion and Analysis

管理層討論與分析

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.

貿易應付款項

我們的貿易應付款項由截至2022年12月31日的人民幣63百萬元增加至截至2023年6月30日的人民幣69百萬元，主要是由於研發項目推進，試驗用原材料採購增長，試劑材料採購增加，應付餘額增大。

其他應付款項及應計費用

我們的其他應付款項及應計費用由截至2022年12月31日的人民幣245百萬元減少至截至2023年6月30日的人民幣198百萬元，主要是由於新冠疫苗管線進入三期臨床末期，應計費用較前期有所下降。

租賃負債

我們的租賃負債由截至2022年12月31日的人民幣50百萬元減少至截至2023年6月30日的人民幣48百萬元，主要是由於經營戰略方向有所改變，因此對於北京安百勝的部分租賃物採取了提前退租。

流動資金及資本資源

我們的現金主要用於研發候選疫苗以及購買設備及機器。截至2023年6月30日止六個月，我們主要透過股權融資及銀行借款支持營運資金需求。我們監察及維持現金及現金等價物水平，認為足以支持我們的營運及減輕現金流量波動的影響。隨著我們的業務發展及擴展，我們預期透過新疫苗商業化從我們的經營活動中產生更多現金。展望未來，我們認為，我們的流動資金需求將透過結合經營所得現金、銀行結餘及現金以及全球發售所得款項淨額的方式滿足。截至2023年6月30日，我們的現金及銀行結餘為人民幣1,099百萬元。於截至2023年6月30日的現金及銀行結餘人民幣1,099百萬元中，人民幣140百萬元（約13%）以人民幣計值、人民幣702百萬元（約64%）以美元計值及人民幣257百萬元（約23%）以港元計值。

Management Discussion and Analysis

管理層討論與分析

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.

流動資產淨值

我們的流動資產淨額由截至2022年12月31日的人民幣1,091百萬元減少至截至2023年6月30日的人民幣946百萬元，主要是由於存貨數量降低以及對過期存貨計提減值。

抵押資產

截至2023年6月30日，本集團就一筆本金為人民幣182百萬元的借款抵押了位於江蘇省泰州市醫藥高新區祥泰路西側、藥城大道北側的不動產權。

負債與財務比率

本集團計息銀行借款總額截至2023年6月30日為人民幣461百萬元。銀行借款中，人民幣7百萬元為即期借款，到期日為2024年，實際利率為3.45-4.65%；人民幣454百萬元為非即期借款，到期日為2025-2028年，實際利率為3.45-4.65%。

我們的流動比率（按流動資產除以截至同日的流動負債計算）由截至2022年12月31日的4.3下降至截至2023年6月30日的4.0，主要由於購買固定資產以致現金及現金等價物降低。

截至2023年6月30日，我們的資本負債比率（按負債總額除以截至同日的資產總額計算）為40%，而截至2022年12月31日為28%，此乃由於借入大量借款用於生產經營。

或有負債

截至2023年6月30日，我們並無任何或有負債。

Management Discussion and Analysis

管理層討論與分析

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 Latest Practicable Date.

Significant Investments and Material Acquisitions and Disposals

Save as disclosed in this report, 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 report, we are not aware of any material subsequent events from the end of the Reporting Period to the Latest Practicable Date.

資本開支及合約承擔

我們的資本開支主要包括(i)在建工程；(ii)廠房及機器；(iii)租賃物業裝修；(iv)汽車；(v)計算機及辦公設備；及(vi)家具及裝置。我們的資本開支由截至2022年6月30日止六個月的人民幣84百萬元增加至截至2023年6月30日止六個月的人民幣102百萬元，主要與本期採購生產設備的金額增加有關。

我們的資本開支承擔由截至2022年12月31日的人民幣69百萬元增加至截至2023年6月30日的人民幣102百萬元，主要由於研發項目的進一步推進，本期工程建設及採購設備的投入繼續增加，並且在建工程新增明顯，因此有所增長。

誠如招股章程所披露，我們計劃將全球發售所得款項（行使超額配股權前）約88百萬港元用於在泰州建設HPV生產基地。除上文所披露者外，於最後實際可行日期，本集團並無其他重大資本開支或投資計劃。

重大投資及重大收購和出售

除本報告所披露者外，截至2023年6月30日止六個月，本公司並無其他重大投資、重大收購及／或出售附屬公司、聯營公司及合營企業。

報告期後事項

除本報告另有披露者外，我們並不知悉自報告期末至最後實際可行日期的任何重大期後事項。

Management Discussion and Analysis

管理層討論與分析

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.

財務風險

我們面臨多項財務風險，包括下文所載的利率風險、外匯風險、信貸風險及流動資金風險。我們的整體風險管理計劃專注於金融市場的不可預測性，並尋求盡量減少對我們財務表現的潛在不利影響。

利率風險

除定期存款以及現金及現金等價物外，本集團並無重大計息資產。本集團的利率風險來自借款，該等借款按浮動利率計息，使本集團面臨市場利率變動的風險。本集團並無使用任何利率掉期來對沖其利率風險。本集團面臨的市場利率變動風險主要與本集團的浮息債務責任有關。

於2023年6月30日，在所有其他參數不變的情況下，如果貸款利率上升／下降50個基點，截至2023年6月30日止六個月的除稅前虧損將會增加／減少人民幣867,000元（2022年：人民幣670,000元），主要是由於貸款利息開支增加／減少所致。

外匯風險

我們主要於中國開展業務，且我們的大部分交易以人民幣（本公司主要附屬公司的功能貨幣）結算。然而，由於部分交易以美元結算，本集團面臨若干交易貨幣風險。本集團僅與獲認可及有信譽的第三方交易。此外，應收款項結餘持續受監控，而本集團面臨的壞賬並不重大。我們目前並無外匯對沖政策。然而，我們的管理層監控外匯風險，並將在有需要時考慮對沖重大外匯風險。截至2023年6月30日，本集團並無因其經營而存在重大外匯風險。



Management Discussion and Analysis

管理層討論與分析

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 report, we do not have other plans for material investments and capital assets as of the Latest Practicable Date.

信貸風險

我們一般僅與獲認可及信譽良好的第三方進行交易。此外，我們持續監控應收款項結餘，故我們面臨的壞賬風險並不重大。倘計入預付款項、其他應收款項及其他資產的金融資產並未逾期且並無數據顯示該等金融資產的信貸風險自初始確認以來大幅增加，則該等金融資產之信貸質素被視為「正常」。否則，該等金融資產的信貸質素被視為「可疑」。

截至2023年6月30日，現金及現金等價物存入優質且並無重大信貸風險的銀行。董事認為，由於該等金融資產的對手方並無違約記錄，故我們因其他應收款項而產生的信貸風險並不重大。

流動資金風險

於管理流動資金風險時，我們監控及維持本集團管理層認為足夠的現金及現金等價物水平，以撥付營運資金及減輕現金流量波動的影響。我們的目標是透過使用銀行貸款及其他借款及租賃負債維持資金的連續性與靈活性之間的平衡。我們旨在維持充足現金及現金等價物以滿足我們的流動資金需求。

重大投資及資本資產的未來計劃

除本報告所披露者外，截至最後實際可行日期，我們概無重大投資及資本資產的其他計劃。

Other Information 其他資料

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

As of June 30, 2023, so far as the Directors are aware, the following persons (other than the Directors, Supervisors or chief executives of our Company) had interests or short positions in the Shares or underlying Shares of our Company as recorded in the register required to be kept by our Company pursuant to section 336 of the SFO:

Long Positions in the Shares and Underlying Shares of the Company

主要股東於股份及相關股份中的權益及淡倉

於2023年6月30日，據董事所知，下列人士（除本公司董事、監事或最高行政人員外）於本公司記錄於本公司根據證券及期貨條例第336條須備存的股東名冊中的股份或相關股份中擁有權益或淡倉：

於本公司股份或相關股份中的好倉

Name	姓名／名稱	Nature of interest 權益性質	Number and class of Shares ⁽¹⁾ 股份數目及類別 ⁽¹⁾	Approximate percentage of interest in our Company ⁽¹⁾ 佔本公司權益的概約百分比 ⁽¹⁾	Approximate percentage of interest in the relevant class of Shares of our Company ⁽¹⁾ 佔本公司相關類別股份權益的概約百分比 ⁽¹⁾
Taizhou Yuangong Technology Partnership (Limited Partnership) ("Taizhou Yuangong") ⁽²⁾	泰州元工科技合夥企業(有限合夥) (「泰州元工」) ⁽²⁾	Beneficial owner 實益擁有人	62,147,715 Domestic Shares 62,147,715股內資股 20,715,905 H Shares 20,715,905股H股	17.16%	37.25% 6.55%
Lianyungang Ruibaitai Medical Technology Partnership (Limited Partnership) ("Lianyungang Ruibaitai") ⁽³⁾	連雲港瑞百泰醫藥科技合夥企業(有限合夥) (「連雲港瑞百泰」) ⁽³⁾	Beneficial owner 實益擁有人	8,076,923 Domestic Shares 8,076,923股內資股	1.67%	4.84%
Beijing Junlian Shengyuan Equity Investment Enterprise (Limited Partnership) ("Junlian Shengyuan") ⁽⁴⁾	北京君聯晟源股權投資合夥企業(有限合夥) (「君聯晟源」) ⁽⁴⁾	Beneficial owner 實益擁有人	7,084,855 Domestic Shares 7,084,855股內資股 21,254,565 H Shares 21,254,565股H股	5.87%	4.25% 6.72%

Other Information 其他資料

Name	姓名／名稱	Nature of interest 權益性質	Number and class of Shares ⁽¹⁾ 股份數目及類別 ⁽¹⁾	Approximate percentage of interest of interest in our Company ⁽¹⁾ 佔本公司權益的概約百分比 ⁽¹⁾	Approximate percentage of interest in the relevant class of Shares of our Company ⁽¹⁾ 佔本公司相關類別股份權益的概約百分比 ⁽¹⁾
Lhasa Junqi Enterprise Management Co., Ltd. ⁽⁴⁾	拉薩君祺企業管理有限公司 ⁽⁴⁾	Interest in controlled corporations 受控法團權益	10,465,255 Domestic Shares 10,465,255股內資股	8.67%	6.27%
			31,395,765 H Shares 31,395,765股H股		9.93%
Legend Capital Co., Ltd. ("Legend Capital") ⁽⁴⁾	君聯資本管理股份有限公司(「君聯資本」) ⁽⁴⁾	Interest in controlled corporations 受控法團權益	10,465,255 Domestic Shares 10,465,255股內資股	9.89%	6.27%
			37,317,145 H Shares 37,317,145股H股		11.80%
Beijing Juncheng Hezhong Investment Management Partnership Enterprises (Limited Partnership) ⁽⁴⁾	北京君誠合眾投資管理合夥企業(有限合夥) ⁽⁴⁾	Interest in controlled corporations 受控法團權益	10,465,255 Domestic Shares 10,465,255股內資股	9.89%	6.27%
			37,317,145 H Shares 37,317,145股H股		11.80%
Beijing Junqi Jiarui Business Management Limited ⁽⁴⁾	北京君祺嘉睿企業管理有限公司 ⁽⁴⁾	Interest in controlled corporations 受控法團權益	10,465,255 Domestic Shares 10,465,255股內資股	9.89%	6.27%
			37,317,145 H Shares 37,317,145股H股		11.80%
CHEN Hao ⁽⁴⁾	陳浩 ⁽⁴⁾	Interest in controlled corporations 受控法團權益	10,465,255 Domestic Shares 10,465,255股內資股	9.89%	6.27%
			37,317,145 H Shares 37,317,145股H股		11.80%
Tianjin Huizhi No. 1 Investment Management Partnership Enterprises (Limited Partnership) ⁽⁴⁾	天津匯智壹號企業管理諮詢合夥企業(有限合夥) ⁽⁴⁾	Interest in controlled corporations 受控法團權益	10,465,255 Domestic Shares 10,465,255股內資股	9.89%	6.27%
			37,317,145 H Shares 37,317,145股H股		11.80%

Other Information 其他資料

Name	姓名／名稱	Nature of interest 權益性質	Number and class of Shares ⁽¹⁾ 股份數目及類別 ⁽¹⁾	Approximate percentage of interest in our Company ⁽¹⁾ 佔本公司權益的概約百分比 ⁽¹⁾	Approximate percentage of interest in the relevant class of Shares of our Company ⁽¹⁾ 佔本公司相關類別股份權益的概約百分比 ⁽¹⁾
ZHU Linan ⁽⁴⁾	朱立南 ⁽⁴⁾	Interest in controlled corporations 受控法團權益	10,465,255 Domestic Shares 10,465,255股內資股	9.89%	6.27%
			37,317,145 H Shares 37,317,145股H股		11.80%
Tianjian Junlian Jieyou Investment Management Partnership Enterprises (Limited Partnership) ⁽⁴⁾	天津君聯傑佑企業管理諮詢合夥企業(有限合夥) ⁽⁴⁾	Interest in controlled corporations 受控法團權益	10,465,255 Domestic Shares 10,465,255股內資股	9.89%	6.27%
			37,317,145 H Shares 37,317,145股H股		11.80%
Shanghai Chaorui Medical Technology Partnership (Limited Partnership) ("Shanghai Chaorui") ⁽⁵⁾	上海超瑞醫藥科技合夥企業(有限合夥)(「上海超瑞」) ⁽⁵⁾	Beneficial owner 實益擁有人	29,912,024 H Shares 29,912,024股H股	6.19%	9.46%
YU Yue ⁽⁵⁾	于躍 ⁽⁵⁾	Interest in controlled corporations 受控法團權益	29,912,024 H Shares 29,912,024股H股	6.19%	9.46%
LIU Hongyan ⁽⁵⁾⁽⁶⁾	劉紅岩 ⁽⁵⁾⁽⁶⁾	Interest in controlled corporations 受控法團權益	7,734,298 Domestic Shares 7,734,298股內資股	8.01%	4.64%
			30,937,192 H Shares 30,937,192股H股		9.79%
			Beneficial owner 實益擁有人		358,808 Domestic Shares 358,808股內資股
		Spouse interest 配偶權益	1,435,232 H Shares 1,435,232股H股	0.27%	0.45%
			256,292 Domestic Shares 256,292股內資股		0.15%
			1,025,168 H Shares 1,025,168股H股		0.32%

Other Information 其他資料

Name	姓名／名稱	Nature of interest 權益性質	Number and class of Shares ⁽¹⁾ 股份數目及類別 ⁽¹⁾	Approximate percentage of interest in our Company ⁽¹⁾ 佔本公司權益的概約百分比 ⁽¹⁾	Approximate percentage of interest in the relevant class of Shares of our Company ⁽¹⁾ 佔本公司相關類別股份權益的概約百分比 ⁽¹⁾
LYFE Niagara River Limited ⁽⁷⁾	LYFE Niagara River Limited ⁽⁷⁾	Beneficial owner 實益擁有人	18,151,700 H Shares 18,151,700股H股	3.76%	5.74%
LYFE Capital Fund III (Dragon), L.P. ⁽⁷⁾	LYFE Capital Fund III (Dragon), L.P. ⁽⁷⁾	Interest in controlled corporations 受控法團權益	18,151,700 H Shares 18,151,700股H股	3.76%	5.74%
LYFE Capital Management Limited ⁽⁷⁾	LYFE Capital Management Limited ⁽⁷⁾	Interest in controlled corporations 受控法團權益	18,151,700 H Shares 18,151,700股H股	3.76%	5.74%
ZHAO Jin ⁽⁷⁾	趙晉 ⁽⁷⁾	Interest in controlled corporations 受控法團權益	18,151,700 H Shares 18,151,700股H股 16,348,140 Domestic Shares 16,348,140股內資股	7.14%	5.74% 9.80%
Shenzhen Fuhai Xincai Phase II Venture Capital Investment Fund Partnership (Limited Partnership) ⁽⁸⁾	深圳市富海新材二期創業投資基金合夥企業(有限合夥) ⁽⁸⁾	Beneficial owner 實益擁有人	15,946,630 H Shares 15,946,630股H股	3.30%	5.04%
Shenzhen Fuhai Xinwan Equity Investment Fund Management Enterprise (Limited Partnership) ⁽⁸⁾	深圳市富海鑫灣股權投資基金管理企業(有限合夥) ⁽⁸⁾	Interest in controlled corporations 受控法團權益	15,946,630 H Shares 15,946,630股H股	3.30%	5.04%
Shenzhen Oriental Fortune Capital Investment Co., Ltd. ("Oriental Fortune Capital") ⁽⁸⁾	深圳市東方富海投資管理股份有限公司(「東方富海」) ⁽⁸⁾	Interest in controlled corporations 受控法團權益	8,669,705 Domestic Shares 8,669,705股內資股 24,616,335 H Shares 24,616,335股H股	6.89%	5.20% 7.79%

Other Information 其他資料

Name	姓名／名稱	Nature of interest 權益性質	Number and class of Shares ⁽¹⁾ 股份數目及類別 ⁽¹⁾	Approximate percentage of interest in our Company ⁽¹⁾ 佔本公司權益的概約百分比 ⁽¹⁾	Approximate percentage of interest in the relevant class of Shares of our Company ⁽¹⁾ 佔本公司相關類別股份權益的概約百分比 ⁽¹⁾
CHEN Wei ⁽⁹⁾	陳瑋 ⁽⁹⁾	Interest in controlled corporations 受控法團權益	8,669,705 Domestic Shares 8,669,705股內資股 24,616,335 H Shares 24,616,335股H股	6.89%	5.20% 7.79%
Shenzhen Fer-Capital Investment Management Co., Ltd. ("Fer-Capital") ⁽⁹⁾	深圳前海沃盈投資管理有限公司(「沃盈投資」) ⁽⁹⁾	Interest in controlled corporations 受控法團權益	9,067,913 Domestic Shares 9,067,913股內資股 18,135,827 H Shares 18,135,827股H股	5.63%	5.44% 5.74%
FENG Tao ⁽⁹⁾	逢濤 ⁽⁹⁾	Interest in controlled corporations 受控法團權益	9,067,913 Domestic Shares 9,067,913股內資股 18,135,827 H Shares 18,135,827股H股	5.63%	5.44% 5.74%
Nanjing Zhaoyin Modern Industry No. II Equity Investment Fund (Limited Partnership) ("Zhaoyin Modern") ⁽¹⁰⁾	南京招銀現代產業貳號股權投資基金(有限合夥)(「招銀現代」) ⁽¹⁰⁾	Beneficial owner 實益擁有人	20,446,160 H Shares 20,446,160股H股	4.23%	6.47%
Jiangsu Zhaoyin Modern Industry Equity Investment Fund Phase I (Limited Partnership) ⁽¹⁰⁾	江蘇招銀現代產業股權投資基金一期(有限合夥) ⁽¹⁰⁾	Interest in controlled corporations 受控法團權益	20,446,160 H Shares 20,446,160股H股	4.23%	6.47%

Other Information 其他資料

Name	姓名／名稱	Nature of interest 權益性質	Number and class of Shares ⁽¹⁾ 股份數目及類別 ⁽¹⁾	Approximate percentage of interest of interest in our Company ⁽¹⁾ 佔本公司權益的概約百分比 ⁽¹⁾	Approximate percentage of interest in the relevant class of Shares of our Company ⁽¹⁾ 佔本公司相關類別股份權益的概約百分比 ⁽¹⁾
CMB International Financial Holdings (Shenzhen) Co., Ltd. ⁽¹⁰⁾	招銀國際金融控股(深圳)有限公司 ⁽¹⁰⁾	Interest in controlled corporations 受控法團權益	22,719,240 H Shares 22,719,240股H股	4.70%	7.19%
Jiangsu Zhaoyin Industrial Fund Management Co., Ltd. ⁽¹⁰⁾	江蘇招銀產業基金管理有限公司 ⁽¹⁰⁾	Interest in controlled corporations 受控法團權益	22,907,700 H Shares 22,907,700股H股	4.74%	7.25%
CMB International Capital Management (Shenzhen) Co., Ltd. ⁽¹⁰⁾	招銀國際資本管理(深圳)有限公司 ⁽¹⁰⁾	Interest in controlled corporations 受控法團權益	22,907,700 H Shares 22,907,700股H股	4.74%	7.25%
CMB Financial Holdings (Shenzhen) Co., Ltd. ⁽¹⁰⁾	招銀金融控股(深圳)有限公司 ⁽¹⁰⁾	Interest in controlled corporations 受控法團權益	22,907,700 H Shares 22,907,700股H股	4.74%	7.25%
CMB International Capital Corporation Limited ⁽¹⁰⁾	招銀國際金融有限公司 ⁽¹⁰⁾	Interest in controlled corporations 受控法團權益	22,907,700 H Shares 22,907,700股H股	4.74%	7.25%
CMB International Capital Holdings Corporation Limited ⁽¹⁰⁾	招銀國際金融控股有限公司 ⁽¹⁰⁾	Interest in controlled corporations 受控法團權益	22,907,700 H Shares 22,907,700股H股	4.74%	7.25%
China Merchants Bank Co., Ltd. ⁽¹⁰⁾	招商銀行股份有限公司 ⁽¹⁰⁾	Interest in controlled corporations 受控法團權益	22,907,700 H Shares 22,907,700股H股	4.74%	7.25%

Other Information 其他資料

Name	姓名／名稱	Nature of interest 權益性質	Number and class of Shares ⁽¹⁾ 股份數目及類別 ⁽¹⁾	Approximate percentage of interest in our Company ⁽¹⁾ 佔本公司權益的概約百分比 ⁽¹⁾	Approximate percentage of interest in the relevant class of Shares of our Company ⁽¹⁾ 佔本公司相關類別股份權益的概約百分比 ⁽¹⁾
Shenzhen Sequoia Hanchen Equity Investment Partnership (L.P.) ("Hanchen") ⁽¹¹⁾	Shenzhen Sequoia Hanchen Equity Investment Partnership (L.P.) ("Hanchen") ⁽¹¹⁾	Beneficial owner 實益擁有人	8,962,500 Domestic Shares 8,962,500股內資股	1.86%	5.37%
Shenzhen Sequoia Yuechen Investment Partnership (Limited Partnership) ("Yuechen") ⁽¹¹⁾	Shenzhen Sequoia Yuechen Investment Partnership (Limited Partnership) ("Yuechen") ⁽¹¹⁾	Interest in controlled corporations 受控法團權益	8,962,500 Domestic Shares 8,962,500股內資股	1.86%	5.37%
Shenzhen Sequoia Yuchen Equity Investment Partnership (Limited Partnership) ("Yuchen") ⁽¹¹⁾	Shenzhen Sequoia Yuchen Equity Investment Partnership (Limited Partnership) ("Yuchen") ⁽¹¹⁾	Interest in controlled corporations 受控法團權益	8,962,500 Domestic Shares 8,962,500股內資股	1.86%	5.37%
Shenzhen Sequoia Antai Equity Investment Partnership (Limited Partnership) ("Antai") ⁽¹¹⁾	Shenzhen Sequoia Antai Equity Investment Partnership (Limited Partnership) ("Antai") ⁽¹¹⁾	Interest in controlled corporations 受控法團權益	8,962,500 Domestic Shares 8,962,500股內資股	1.86%	5.37%

Other Information 其他資料

Name	姓名／名稱	Nature of interest 權益性質	Number and class of Shares ⁽¹⁾ 股份數目及類別 ⁽¹⁾	Approximate percentage of interest in our Company ⁽¹⁾ 佔本公司權益的概約百分比 ⁽¹⁾	Approximate percentage of interest in the relevant class of Shares of our Company ⁽¹⁾ 佔本公司相關類別股份權益的概約百分比 ⁽¹⁾
Shenzhen Sequoia Huanyu Investment Consulting Co., Ltd. ("Huanyu") ⁽¹¹⁾	Shenzhen Sequoia Huanyu Investment Consulting Co., Ltd. ("Huanyu") ⁽¹¹⁾	Interest in controlled corporations 受控法團權益	8,962,500 Domestic Shares 8,962,500股內資股	1.86%	5.37%
ZHOU Kui ⁽¹¹⁾	周達 ⁽¹¹⁾	Interest in controlled corporations 受控法團權益	8,962,500 Domestic Shares 8,962,500股內資股	1.86%	5.37%
Springleaf Investments Pte. Ltd. ⁽¹²⁾	Springleaf Investments Pte. Ltd. ⁽¹²⁾	Beneficial owner 實益擁有人	12,000,000 Unlisted Foreign Shares 12,000,000股未上市外資股	2.48%	7.19%
Anderson Investments Pte. Ltd. ⁽¹²⁾	Anderson Investments Pte. Ltd. ⁽¹²⁾	Interest in controlled corporations 受控法團權益	12,000,000 Unlisted Foreign Shares 12,000,000股未上市外資股	2.48%	7.19%
Thomson Capital Pte. Ltd. ⁽¹²⁾	Thomson Capital Pte. Ltd. ⁽¹²⁾	Interest in controlled corporations 受控法團權益	12,000,000 Unlisted Foreign Shares 12,000,000股未上市外資股	2.48%	7.19%
Tembusu Capital Pte. Ltd. ⁽¹²⁾	Tembusu Capital Pte. Ltd. ⁽¹²⁾	Interest in controlled corporations 受控法團權益	12,000,000 Unlisted Foreign Shares 12,000,000股未上市外資股	2.48%	7.19%
Temasek Holdings (Private) Limited ⁽¹²⁾	Temasek Holdings (Private) Limited ⁽¹²⁾	Interest in controlled corporations 受控法團權益	12,000,000 Unlisted Foreign Shares 12,000,000股未上市外資股	2.48%	7.19%

Other Information 其他資料

Notes :

1. As at June 30, 2023, the Company had issued a total of 482,963,000 Shares, comprising 154,824,311 Domestic Shares, 12,000,000 Unlisted Foreign Shares and 316,138,689 H Shares. All interests stated are long positions. For the Domestic Shareholders and Unlisted Foreign Shareholders, the approximate percentage of interest in the relevant class of Shares of the Company is calculated based on the sum of the issued Domestic Shares and Unlisted Foreign Shares.
2. Taizhou Yuangong was owned as to 0.0001% by Dr. LIU as a general partner.
3. Lianyungang Ruibaitai was owned as to 37.27% by Dr. LIU as a general partner.
4. The general partner of Junlian Shengyuan was Lhasa Junqi Enterprise Management Co., Ltd. (拉薩君祺企業管理有限公司). Zhuhai Junlian Yongshuo Equity Investment Enterprise (Limited Partnership) (珠海君聯永碩股權投資企業(有限合夥)) was controlled by Lhasa Junqi Enterprise Management Co., Ltd. (拉薩君祺企業管理有限公司). Lhasa Junqi Enterprise Management Co., Ltd. (拉薩君祺企業管理有限公司) was wholly owned by Legend Capital, which was held as to 80% by Beijing Juncheng Hezhong Investment Management Partnership Enterprises (Limited Partnership) (北京君誠合眾投資管理合夥企業(有限合夥)). The general partners of Beijing Juncheng Hezhong Investment Management Partnership Enterprises (Limited Partnership) (北京君誠合眾投資管理合夥企業(有限合夥)) were Beijing Junqi Jiarui Business Management Limited (北京君祺嘉睿企業管理有限公司), Tianjin Huizhi No.1 Investment Management Partnership Enterprises (Limited Partnership) (天津匯智壹號企業管理諮詢合夥企業(有限合夥)) and Tianjin Junlian Jieyou Investment Management Partnership Enterprises (Limited Partnership) (天津君聯傑佑企業管理諮詢合夥企業(有限合夥)), holding approximately 58.12% and 41.87% of its partnership interest respectively. The partnership interest of Beijing Junqi Jiarui Business Management Limited (北京君祺嘉睿企業管理有限公司) was approximately 40% owned by CHEN Hao (陳浩). The partnership interest of Tianjin Huizhi No.1 Investment Management Partnership Enterprises (Limited Partnership) (天津匯智壹號企業管理諮詢合夥企業(有限合夥)) was approximately 34.68% owned by ZHU Linan (朱立南).

附註 :

1. 於2023年6月30日，本公司已發行股份總數為482,963,000股，包括154,824,311股內資股、12,000,000股未上市外資股及316,138,689股H股。所列所有權益均為好倉。就內資股及未上市外資股股東而言，佔本公司相關類別股份權益的概約百分比乃根據已發行內資股及未上市外資股總數計算。
2. 泰州元工由劉博士(作為普通合夥人)擁有0.0001%。
3. 連雲港瑞百泰由劉博士(作為普通合夥人)擁有37.27%。
4. 君聯晟源的普通合夥人為拉薩君祺企業管理有限公司，珠海君聯永碩股權投資企業(有限合夥)由拉薩君祺企業管理有限公司控制。拉薩君祺企業管理有限公司由君聯資本全資擁有，而君聯資本由北京君誠合眾投資管理合夥企業(有限合夥)持有80%。北京君誠合眾投資管理合夥企業(有限合夥)的普通合夥人為北京君祺嘉睿企業管理有限公司，天津匯智壹號企業管理諮詢合夥企業(有限合夥)及天津君聯傑佑企業管理諮詢合夥企業(有限合夥)，分別持有其約58.12%及41.87%的合夥權益。北京君祺嘉睿企業管理有限公司由陳浩持有其約40%的合夥權益。天津匯智壹號企業管理諮詢合夥企業(有限合夥)由朱立南持有其約34.68%的合夥權益。

Other Information 其他資料

LC Healthcare Fund II., L.P. was managed by LC Healthcare Fund II GP Limited, which was wholly owned by LC Fund GP Limited. LC Fund GP Limited was wholly owned by Union Season Holdings Limited. Union Season Holdings Limited was wholly owned by Legend Capital.

Therefore, under the SFO, Lhasa Junqi Enterprise Management Co., Ltd. (拉薩君祺企業管理有限公司) was deemed to be interested in the Shares held by Junlian Shengyuan and Zhuhai Junlian Yongshuo Equity Investment Enterprise (Limited Partnership) (珠海君聯永碩股權投資企業(有限合夥)); each of Legend Capital, Beijing Juncheng Hezhong Investment Management Partnership Enterprises (Limited Partnership) (北京君誠合眾投資管理合夥企業(有限合夥)), Beijing Junqi Jiarui Business Management Limited (北京君祺嘉睿企業管理有限公司), Tianjin Huizhi No.1 Investment Management Consulting Partnership Enterprises (Limited Partnership) (天津匯智壹號企業管理諮詢合夥企業(有限合夥)), Tianjin Junlian Jieyou Investment Enterprise Management Partnership Enterprises (Limited Partnership) (天津君聯傑佑企業管理諮詢合夥企業(有限合夥)), CHEN Hao (陳浩) and ZHU Linan (朱立南) was deemed to be interested in the Shares held by Junlian Shengyuan, Zhuhai Junlian Yongshuo Equity Investment Enterprise (Limited Partnership) (珠海君聯永碩股權投資企業(有限合夥)) and LC Healthcare Fund II, L.P.

- Shanghai Chaorui was owned as to approximately 10.48% by YU Yue (于躍) as a general partner and 36.56% by LIU Hongyan (劉紅岩) as a limited partner. Therefore, each of YU Yue (于躍) and LIU Hongyan (劉紅岩) was deemed to be interested in the Shares held by Shanghai Chaorui under the SFO.
- Nanjing Xinrui Technology Partnership (Limited Partnership) (南京新睿科技合夥企業(有限合夥)) held 256,292 Domestic Shares and 1,025,168 H Shares, whose general partner was LIU Hongyan (劉紅岩). ZHAO Jiayi (趙嘉藝), spouse of LIU Hongyan (劉紅岩), held 256,292 Domestic Shares and 1,025,168 H Shares respectively. Therefore, LIU Hongyan was deemed to be interested in the Shares held by Nanjing Xinrui Technology Partnership (Limited Partnership) (南京新睿科技合夥企業(有限合夥)) and ZHAO Jiayi (趙嘉藝).

LC Healthcare Fund II., L.P.由LC Healthcare Fund II GP Limited管理，而LC Healthcare Fund II GP Limited由LC Fund GP Limited全資擁有。LC Fund GP Limited由Union Season Holdings Limited全資擁有。Union Season Holdings Limited由君聯資本全資擁有。

因此，根據證券及期貨條例，拉薩君祺企業管理有限公司被視為於君聯晟源及珠海君聯永碩股權投資企業(有限合夥)持有的股份中擁有權益；君聯資本、北京君誠合眾投資管理合夥企業(有限合夥)、北京君祺嘉睿企業管理有限公司、天津匯智壹號企業管理諮詢合夥企業(有限合夥)、天津君聯傑佑企業管理諮詢合夥企業(有限合夥)、陳浩及朱立南各自被視為於君聯晟源、珠海君聯永碩股權投資企業(有限合夥)及LC Healthcare Fund II, L.P.持有的股份中擁有權益。

- 上海超瑞由于躍作為普通合夥人擁有約10.48%及劉紅岩作為有限合夥人擁有36.56%。因此，根據證券及期貨條例，于躍及劉紅岩各自被視為於上海超瑞持有的股份中擁有權益。
- 南京新睿科技合夥企業(有限合夥)持有256,292股內資股及1,025,168股H股，該公司普通合夥人為劉紅岩。劉紅岩的配偶趙嘉藝分別持有256,292股內資股及1,025,168股H股。因此，劉紅岩被視為於南京新睿科技合夥企業(有限合夥)及趙嘉藝持有的股份中擁有權益。

Other Information 其他資料

7. LYFE Niagara River Limited, Shanghai Jiyue Enterprise Management Partnership (Limited Partnership) (上海濟玥企業管理合夥企業(有限合夥)) (“**Shanghai Jiyue**”) and Shanghai Jixuan Enterprise Management Partnership (Limited Partnership) (上海濟軒企業管理合夥企業(有限合夥)) (“**Shanghai Jixuan**”) held 18,151,700 H Shares, 8,318,800 Domestic Shares and 8,029,340 Domestic Shares, respectively. LYFE Niagara River Limited was controlled by LYFE Capital Fund III (Dragon), L.P.. LYFE Capital Fund III (Dragon) L.P. was controlled by LYFE Capital Management Limited, which was in turn controlled by ZHAO Jin (趙晉). Therefore, each of LYFE Capital Fund III (Dragon), L.P., LYFE Capital Management Limited and ZHAO Jin (趙晉) was deemed to be interested in the Shares held by LYFE Niagara River Limited under the SFO. Shanghai Jiyue and Shanghai Jixuan were managed by LYFE Capital Investment Management (Shanghai) Co., Ltd. (洲嶺私募基金管理(上海)有限公司), which was in turn controlled by ZHAO Jin (趙晉). Therefore, each of ZHAO Jin (趙晉) and LYFE Capital Investment Management (Shanghai) Co., Ltd. (洲嶺私募基金管理(上海)有限公司) was deemed to be interested in the Shares held by Shanghai Jiyue and Shanghai Jixuan under the SFO.
8. Oriental Fortune Capital was interested in an aggregate of 24,616,335 H Shares and 8,669,705 Domestic Shares through six entities, including (i) Shenzhen Fuhai Juanyong II Venture Capital Enterprise (Limited Partnership) (深圳富海雋永二號創業投資企業(有限合夥)) (the general partner is Shenzhen Oriental Fortune Venture Capital Investment Co., Ltd. (深圳市東方富海創業投資管理有限公司), which was in turn wholly owned by Oriental Fortune Capital), (ii) Shenzhen Fuhai Juanyong III Venture Capital Enterprise (Limited Partnership) (深圳富海雋永三號創業投資企業(有限合夥)) (the general partner is Shenzhen Oriental Fortune Venture Capital Investment Co., Ltd., which was in turn wholly owned by Oriental Fortune Capital), (iii) Shenzhen Fuhai Youxuan II High Technology Venture Capital Investment Partnership (Limited Partnership) (深圳市富海優選二號高科技創業投資合夥企業(有限合夥)) (the general partner is Shenzhen Oriental Fortune Venture Capital Investment Co., Ltd. (深圳市東方富海創業投資管理有限公司), which was in turn wholly owned by Oriental Fortune Capital), (iv) Shenzhen Nanshan OFC Small and Medium Venture Capital Investment Fund Partnership (Limited Partnership) (深圳南山東方富海中小微創業投資基金合夥企業(有限合夥)) (the general partner is Shenzhen Oriental Fortune Venture Capital Investment Co., Ltd. (深圳市東方富海創業投資管理有限公司), which was in turn wholly owned by Oriental Fortune Capital), (v) Shenzhen
7. LYFE Niagara River Limited、上海濟玥企業管理合夥企業(有限合夥)(「**上海濟玥**」)及上海濟軒企業管理合夥企業(有限合夥)(「**上海濟軒**」)分別持有18,151,700股H股、8,318,800股內資股及8,029,340股內資股。LYFE Niagara River Limited由LYFE Capital Fund III (Dragon), L.P.控制。LYFE Capital Fund III (Dragon), L.P.由LYFE Capital Management Limited控制，而LYFE Capital Management Limited由趙晉控制。因此，根據證券及期貨條例，LYFE Capital Fund III (Dragon), L.P.、LYFE Capital Management Limited及趙晉各自被視為於LYFE Niagara River Limited持有的股份中擁有權益。上海濟玥及上海濟軒由洲嶺私募基金管理(上海)有限公司管理，而洲嶺私募基金管理(上海)有限公司由趙晉控制。因此，根據證券及期貨條例，趙晉及洲嶺私募基金管理(上海)有限公司各自被視為於上海濟玥及上海濟軒持有的股份中擁有權益。
8. 東方富海透過六家實體於共計24,616,335股H股及8,669,705股內資股中擁有權益，包括(i)深圳富海雋永二號創業投資企業(有限合夥)(其普通合夥人為深圳市東方富海創業投資管理有限公司，該公司由東方富海全資擁有)，(ii)深圳富海雋永三號創業投資企業(有限合夥)(其普通合夥人為深圳市東方富海創業投資管理有限公司，該公司由東方富海全資擁有)，(iii)深圳市富海優選二號高科技創業投資合夥企業(有限合夥)(其普通合夥人為深圳市東方富海創業投資管理有限公司，該公司由東方富海全資擁有)，(iv)深圳南山東方富海中小微創業投資基金合夥企業(有限合夥)(其普通合夥人為深圳市東方富海創業投資管理有限公司，該公司由東方富海全資擁有)，(v)深圳市前海科技富

Other Information 其他資料

Qianhai Kekong Fuhai Youxuan Venture Capital Investment Partnership (Limited Partnership) (深圳市前海科控富海優選創業投資合夥企業(有限合夥)) (the general partner is Shenzhen Qianhai Kekong Gangshen Venture Investment Co., Ltd. (深圳市前海科控港深創業投資有限公司), which was in turn owned as to 50% by Oriental Fortune Capital), and (vi) Shenzhen Fuhai Xincai Phase II Venture Capital Investment Fund Partnership (Limited Partnership) (深圳市富海新材二期創業投資基金合夥企業(有限合夥)) (the general partner is Shenzhen Fuhai Xinwan Equity Investment Fund Management Enterprise (Limited Partnership) (深圳市富海鑫灣股權投資基金管理企業(有限合夥)), which was in turn owned as to 90% by Oriental Fortune Capital. Oriental Fortune Capital was owned as to 48.42% by CHEN Wei (陳瑋). Therefore, under the SFO, Shenzhen Fuhai Xinwan Equity Investment Fund Management Enterprise (Limited Partnership) (深圳市富海鑫灣股權投資基金管理企業(有限合夥)) was deemed to be interested in the Shares held by Shenzhen Fuhai Xincai Phase II Venture Capital Investment Fund Partnership (Limited Partnership) (深圳市富海新材二期創業投資基金合夥企業(有限合夥)); Oriental Fortune Capital and CHEN Wei (陳瑋) were deemed to be interested in the Shares held by the above six entities.

海優選創業投資合夥企業(有限合夥)(其普通合夥人為深圳市前海科控港深創業投資有限公司,該公司由東方富海擁有50%)·及(vi)深圳市富海新材二期創業投資基金合夥企業(有限合夥)(其普通合夥人為深圳市富海鑫灣股權投資基金管理企業(有限合夥),該公司由東方富海擁有90%)。東方富海由陳瑋擁有48.42%。因此,根據證券及期貨條例,深圳市富海鑫灣股權投資基金管理企業(有限合夥)被視為於深圳市富海新材二期創業投資基金合夥企業(有限合夥)持有的股份中擁有權益;東方富海及陳瑋被視為於上述六個實體持有的股份中擁有權益。

9. Fer-Capital was the general partner of each of Shenzhen Yingkejin Investment Management Partnership (Limited Partnership) (深圳盈科進投資管理合夥企業(有限合夥)) (“**Shenzhen Yingkejin**”), Liuyang Woyang Health Industry Investment Partnership (Limited Partnership) (瀏陽沃陽健康產業投資合夥企業(有限合夥)) (“**Woyang Health**”), Changsha Woyang Phase II Health Industry Investment Partnership (Limited Partnership) (長沙沃陽二期健康產業投資合夥企業(有限合夥)) (“**Woyang Phase II**”) and Shenzhen Luwei Investment Management Partnership (Limited Partnership) (深圳略威投資管理合夥企業(有限合夥)) (“**Shenzhen Luwei**”). Fer-Capital is held by FENG Tao (逢濤) as to an aggregate of approximately 42.80% (comprising 32.80% of his direct equity interests, and as a general partner of Shenzhen Huizhi Gongying Enterprise Management Partnership (Limited Partnership) (深圳市匯智共盈企業管理合夥企業(有限合夥)) holding 10% equity interests), and 33.60% by CHEN Erjia (陳爾佳). Therefore, each of FENG Tao, CHEN Erjia and Fer-Capital was deemed to be interested in the Shares held by Shenzhen Yingkejin, Woyang Health, Woyang Phase II and Shenzhen Luwei under the SFO.

9. 沃盈投資為深圳盈科進投資管理合夥企業(有限合夥)(「**深圳盈科進**」)·瀏陽沃陽健康產業投資合夥企業(有限合夥)(「**沃陽健康**」)·長沙沃陽二期健康產業投資合夥企業(有限合夥)(「**沃陽二期**」)及深圳略威投資管理合夥企業(有限合夥)(「**深圳略威**」)各自的普通合夥人。沃盈投資由逢濤持有,合共約42.80%(包括其直接股權的32.80%,且作為深圳市匯智共盈企業管理合夥企業(有限合夥)的普通合夥人持有10%股權)及由陳爾佳持有33.60%。因此,根據證券及期貨條例,逢濤、陳爾佳及沃盈投資被視為於深圳盈科進、沃陽健康、沃陽二期及深圳略威各自持有的股份中擁有權益。

Other Information 其他資料

10. Zhaoyin Modern, Nanjing Zhenyuan III Equity Investment Partnership (Limited Partnership) (南京甄遠叁號股權投資合夥企業(有限合夥)) (“**Nanjing Zhenyuan**”) and Nanjing Zhaoyin Gongying Equity Investment Partnership (Limited Partnership) (南京市招銀共贏股權投資合夥企業(有限合夥)) (“**Nanjing Zhaoyin Gongying**”) held Shares of the Company respectively. Zhaoyin Modern was managed by Jiangsu Zhaoyin Industrial Fund Management Co., Ltd. (江蘇招銀產業基金管理有限公司) and 83.26% was held by Jiangsu Zhaoyin Modern Industry Equity Investment Fund Phase I (Limited Partnership) (江蘇招銀現代產業股權投資基金一期(有限合夥)). Jiangsu Zhaoyin Industrial Fund Management Co., Ltd. (江蘇招銀產業基金管理有限公司) was wholly owned by CMB International Capital Management (Shenzhen) Co., Ltd. (招銀國際資本管理(深圳)有限公司). Jiangsu Zhaoyin Modern Industry Equity Investment Fund Phase I (Limited Partnership) (江蘇招銀現代產業股權投資基金一期(有限合夥)) was managed by Jiangsu Zhaoyin Industrial Fund Management Co., Ltd. (江蘇招銀產業基金管理有限公司) and 66.56% was held by CMB International Financial Holdings (Shenzhen) Corporation Limited (招銀國際金融控股(深圳)有限公司). Nanjing Zhenyuan was managed by Jiangsu Zhaoyin Industrial Fund Management Co., Ltd. (江蘇招銀產業基金管理有限公司) and 99.95% was held by Shanghai Qiji Technology Partnership (L.P.) (上海旗驥科技合夥企業(有限合夥)). Shanghai Qiji Technology Partnership (L.P.) (上海旗驥科技合夥企業(有限合夥)) was managed by CMB International Financial Holdings (Shenzhen) Co., Ltd. (招銀國際金融控股(深圳)有限公司) and 99.90% was held by CMB Financial Holdings (Shenzhen) Co., Ltd. (招銀金融控股(深圳)有限公司). CMB International Financial Holdings (Shenzhen) Co., Ltd. (招銀國際金融控股(深圳)有限公司) was a wholly-owned subsidiary of CMB Financial Holdings (Shenzhen) Co., Ltd. (招銀金融控股(深圳)有限公司).

Nanjing Zhaoyin Gongying was managed by Jiangsu Zhaoyin Industrial Fund Management Co., Ltd. (江蘇招銀產業基金管理有限公司), a wholly-owned subsidiary of CMB International Capital Management (Shenzhen) Co., Ltd. (招銀國際資本管理(深圳)有限公司), which was in turn a wholly-owned subsidiary of CMB Financial Holdings (Shenzhen) Co., Ltd. (招銀金融控股(深圳)有限公司). CMB Financial Holdings (Shenzhen) Co., Ltd. (招銀金融控股(深圳)有限公司) was wholly owned by CMB International Capital Corporation Limited (招銀國際金融有限公司), which was held as to 83.20% by CMB International Capital Holdings Corporation Limited (招銀國際金融控股有限公司). CMB International Capital Holdings Corporation Limited (招銀國際金融控股有限公司) was wholly owned by China Merchants Bank Co., Ltd., a company listed on the Stock Exchange (stock code: 03968) and Shanghai Stock Exchange (stock code: 600036).

10. 招銀現代、南京甄遠叁號股權投資合夥企業(有限合夥)(「**南京甄遠**」)及南京市招銀共贏股權投資合夥企業(有限合夥)(「**南京招銀共贏**」)分別持有本公司股份。招銀現代由江蘇招銀產業基金管理有限公司管理及由江蘇招銀現代產業股權投資基金一期(有限合夥)持有83.26%。江蘇招銀產業基金管理有限公司由招銀國際資本管理(深圳)有限公司全資擁有,江蘇招銀現代產業股權投資基金一期(有限合夥)由江蘇招銀產業基金管理有限公司管理及由招銀國際金融控股(深圳)有限公司持有66.56%。南京甄遠由江蘇招銀產業基金管理有限公司管理及由上海旗驥科技合夥企業(有限合夥)持有99.95%。上海旗驥科技合夥企業(有限合夥)由招銀國際金融控股(深圳)有限公司管理及由招銀金融控股(深圳)有限公司持有99.90%。招銀國際金融控股(深圳)有限公司為招銀金融控股(深圳)有限公司的全資附屬公司。

南京招銀共贏由江蘇招銀產業基金管理有限公司(招銀國際資本管理(深圳)有限公司的全資附屬公司)管理,而招銀國際資本管理(深圳)有限公司為招銀金融控股(深圳)有限公司的全資附屬公司。招銀金融控股(深圳)有限公司由招銀國際金融有限公司(其由招銀國際金融控股有限公司持有83.20%)全資擁有,而招銀國際金融控股有限公司由招商銀行股份有限公司(一間於聯交所上市(股份代號:03968)及上海證券交易所上市(股份代號:600036)的公司)全資擁有。

Other Information 其他資料

Therefore, under the SFO, Jiangsu Zhaoyin Modern Industry Equity Investment Fund Phase I (Limited Partnership) (江蘇招銀現代產業股權投資基金一期(有限合夥)) was deemed to be interested in the Shares held by Zhaoyin Modern; CMB International Financial Holdings (Shenzhen) Co., Ltd. (招銀國際金融控股(深圳)有限公司) was deemed to be interested in the Shares held by each of Zhaoyin Modern and Nanjing Zhenyuan; China Merchants Bank Co., Ltd., CMB International Capital Holdings Corporation Limited, CMB International Capital Corporation Limited, CMB Financial Holdings (Shenzhen) Co., Ltd., CMB International Capital Management (Shenzhen) Co., Ltd. and Jiangsu Zhaoyin Industrial Fund Management Co., Ltd. were deemed to be interested in the Shares held by each of Zhaoyin Modern, Nanjing Zhenyuan and Nanjing Zhaoyin Gongying under the SFO.

11. The general partner of Hanchen was Antai and was held as to 99.99% by Yuechen. The general partner of Yuechen was Antai and was held as to 60.60% by Yuchen. The general partner of Yuchen was Antai. The general partner of Antai was Huanyu. Huanyu was held as to 70% by ZHOU Kui. Therefore, Yuechen, Yuchen, Antai, Huanyu and ZHOU Kui were deemed to be interested in the Shares held by Hanchen.
12. Springleaf Investments Pte. Ltd. was a wholly-owned subsidiary of Anderson Investments Pte. Ltd., which in turn was a wholly-owned subsidiary of Thomson Capital Pte. Ltd. Thomson Capital Pte. Ltd. was a wholly-owned subsidiary of Tembusu Capital Pte. Ltd., which in turn was a wholly-owned subsidiary of Temasek Holdings (Private) Limited. Therefore, each of Anderson Investments Pte. Ltd., Thomson Capital Pte. Ltd., Tembusu Capital Pte. Ltd. and Temasek Holdings (Private) Limited was deemed to be interested in the Shares held by Springleaf Investments Pte. Ltd. under the SFO.

因此，根據證券及期貨條例，江蘇招銀現代產業股權投資基金一期(有限合夥)被視為於招銀現代持有的股份中擁有權益；招銀國際金融控股(深圳)有限公司被視為於招銀現代及南京甄遠各自持有的股份中擁有權益；招商銀行股份有限公司、招銀國際金融控股有限公司、招銀國際金融有限公司、招銀金融控股(深圳)有限公司、招銀國際資本管理(深圳)有限公司及江蘇招銀產業基金管理有限公司被視為於招銀現代、南京甄遠及南京招銀共贏各自持有的股份中擁有權益。

11. Hanchen的普通合夥人為Antai及由Yuechen持有99.99%。Yuechen的普通合夥人為Antai及由Yuchen持有60.60%。Yuchen的普通合夥人為Antai。Antai的普通合夥人為Huanyu，Huanyu由周達持有70%。因此，根據證券及期貨條例，Yuechen、Yuchen、Antai、Huanyu及周達各自被視為於Hanchen持有的股份中擁有權益。
12. Springleaf Investments Pte. Ltd.為Anderson Investments Pte. Ltd.的全資附屬公司，而Anderson Investments Pte. Ltd.為Thomson Capital Pte. Ltd.的全資附屬公司。Thomson Capital Pte. Ltd.為Tembusu Capital Pte. Ltd.的全資附屬公司，而Tembusu Capital Pte. Ltd.為Temasek Holdings (Private) Limited的全資附屬公司。因此，根據證券及期貨條例，Anderson Investments Pte. Ltd.、Thomson Capital Pte. Ltd.、Tembusu Capital Pte. Ltd.及Temasek Holdings (Private) Limited各自被視為於Springleaf Investments Pte. Ltd.持有的股份中擁有權益。

Other Information 其他資料

Save as disclosed above, as at June 30, 2023, no other persons, other than the Directors or chief executives of our Company whose interests are set out in the section headed “Directors’, Supervisors’ and Chief Executives’ Interests and Short Positions in Shares and Underlying Shares and Debentures of our Company and any of its Associated Corporations” below, had any interests or short positions in the Shares or underlying Shares as recorded in the register required to be kept under section 336 of the SFO.

DIRECTORS’, SUPERVISORS’ AND CHIEF EXECUTIVES’ INTERESTS AND SHORT POSITIONS IN SHARES AND UNDERLYING SHARES AND DEBENTURES OF OUR COMPANY AND ANY OF ITS ASSOCIATED CORPORATIONS

As of June 30, 2023, the interests and short positions of the Directors, Supervisors and chief executives of our Company in any of the Shares, underlying Shares and debentures of our Company or its associated corporation (within the meaning of Part XV of the SFO) as recorded in the register required to be kept by our Company under section 352 of the SFO, or as otherwise notified to our Company and the Stock Exchange under the Model Code were as follows:

Long positions in the Shares or underlying Shares of our Company

除上文所披露者外，於2023年6月30日，除其權益載於下文「董事、監事及最高行政人員於本公司及其任何相聯法團的股份及相關股份及債權證中擁有的權益及淡倉」一節的本公司董事或最高行政人員外，概無其他人士記錄於根據證券及期貨條例第336條須備存的股東名冊中的股份或相關股份中擁有任何權益或淡倉。

董事、監事及最高行政人員於本公司及其任何相聯法團的股份及相關股份及債權證中擁有的權益及淡倉

於2023年6月30日，本公司董事、監事及最高行政人員於本公司或其相聯法團（定義見證券及期貨條例第XV部）的任何股份、相關股份及債權證中擁有記錄於本公司根據證券及期貨條例第352條須備存的股東名冊中的權益及淡倉；或根據標準守則規定須另行知會本公司及聯交所的權益及淡倉如下：

於本公司股份或相關股份中的好倉

Name	姓名／名稱	Nature of interest	Number and class of Shares ⁽¹⁾	Approximate percentage of interest in our Company ⁽¹⁾	Approximate percentage of interest in the relevant class of Shares of our Company ⁽¹⁾
		權益性質	股份數目及類別 ⁽¹⁾	佔本公司權益的概約百分比 ⁽¹⁾	佔本公司相關類別股份權益的概約百分比 ⁽¹⁾
Dr. LIU	劉博士	Beneficial owner 實益擁有人	193,943 Domestic Shares	0.05%	0.12%
			193,943 股內資股		
		Interest in controlled corporations ⁽²⁾ 受控法團權益 ⁽²⁾	64,647 H Shares	20.02%	43.47%
			64,647 股H股		
			72,512,138 Domestic Shares		
			72,512,138 股內資股		
			24,170,712 H Shares		7.65%
			24,170,712 股H股		

Other Information 其他資料

Notes:

- As at June 30, 2023, our Company had issued a total of 482,963,000 Shares, comprising 154,824,311 Domestic Shares, 12,000,000 Unlisted Foreign Shares and 316,138,689 H Shares. All interests stated were long positions. For Shareholders of Domestic Shares and Unlisted Foreign Shares, the approximate percentage of interest in the relevant class of Shares of our Company was calculated based on the sum of the issued Domestic Shares and Unlisted Foreign Shares.
- Dr. LIU was the general partner of each of Taizhou Yuangong, Taizhou Baibei Biotechnology Partnership (Limited Partnership) (泰州百倍生物科技合夥企業(有限合夥)) (“**Taizhou Baibei**”), Taizhou Guquan Biotechnology Partnership (Limited Partnership) (泰州古泉生物科技合夥企業(有限合夥)) (“**Taizhou Guquan**”) and Lianyungang Ruibaitai, and was interested in an aggregate of 72,512,138 Domestic Shares and 24,170,712 H Shares held by these four entities. Therefore, Dr. LIU was deemed to be interested in the Shares held by each of Taizhou Yuangong, Taizhou Baibei, Taizhou Guquan and Lianyungang Ruibaitai under the SFO.

Save as disclosed above, as at June 30, 2023, none of the Directors, Supervisors or chief executives of our Company had or was deemed to have any interests or short positions in the Shares, underlying Shares or debentures of our Company or any of its associated corporations (as defined under Part XV of the SFO).

附註：

- 於2023年6月30日，本公司已發行股份總數為482,963,000股，包括154,824,311股內資股、12,000,000股未上市外資股及316,138,689股H股。所列所有權益均為好倉。就內資股及未上市外資股股東而言，佔本公司相關類別股份權益的概約百分比乃根據已發行內資股及未上市外資股總數計算。
- 劉博士為泰州元工、泰州百倍生物科技合夥企業(有限合夥)(「**泰州百倍**」)、泰州古泉生物科技合夥企業(有限合夥)(「**泰州古泉**」)及連雲港瑞百泰各自的普通合夥人，並於該四家實體持有的合共72,512,138股內資股及24,170,712股H股中擁有權益。因此，根據證券及期貨條例，劉博士被視為於泰州元工、泰州百倍、泰州古泉及連雲港瑞百泰各自持有的股份中擁有權益。

除上文所披露者外，於2023年6月30日，概無本公司董事、監事或最高行政人員於本公司或任何其相關法團(定義見證券及期貨條例第XV部)的股份、相關股份或債權證中擁有或被視作擁有任何權益或淡倉。

Other Information 其他資料

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.

購買、出售或贖回本公司股份

於2022年12月28日，本公司召開的臨時股東大會及類別股東會議，審議批准了關於定向發行內資股及其相關事宜（「**建議發行**」）的議案。據此，為進一步提高本公司綜合競爭力，增加風險抵禦能力，補充在研產品管線研發資金，促進業務平穩健康發展，本公司擬向不超過35名符合資格的境內機構投資者發行不超過57,955,560股內資股，每股面值為人民幣1.00元。

建議發行募集資金目前預計將不少於640百萬港元，並將用於以下用途：(1)約50%將分配予REC610，包括IND申請、臨床試驗、BLA提交、生產設施建設及商業化；(2)約25%將分配予ReCOV，包括正在進行的菲律賓、尼泊爾及俄羅斯的III期臨床試驗；及(3)約25%將分配作營運資金及一般企業用途。

於2023年4月19日，本公司收到中國證監會《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)，中國證監會已批准建議發行。建議發行尚需滿足若干條件，發行方案詳情尚未最終確定，本公司將根據上市規則及／或適用法律法規就建議發行適時適當地進行進一步披露。

Other Information 其他資料

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 report, 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).

有關建議發行的詳情，請參閱本公司日期為2022年10月31日、2022年12月28日、2023年2月8日及2023年4月19日的公告以及日期為2022年12月13日的通函。

除本報告披露外，報告期內本公司及其任何附屬公司概無購買、出售或贖回本公司之任何上市證券。

H股全流通

於2022年8月15日，本公司召開的臨時股東大會及類別股東會議，審議批准了關於申請公司未上市股份「全流通」的議案。

於2022年8月25日，本公司收到中國證監會就有關本公司向中國證監會提交的關於實施本次H股全流通申請（「申請」）的正式受理函件。根據申請，本公司申請將222,498,569股內資股轉換為H股並在聯交所上市。

於2022年11月10日，本公司收到中國證監會對申請的批覆。根據批准，據此，中國證監會核准本公司46名股東將所持合計222,498,569股內資股轉換為H股並在聯交所上市，批覆自核准之日（2022年11月3日）起12個月內有效。

於2022年12月1日，聯交所授出222,498,569股H股（即根據轉換及上市將予轉換的內資股的最高數目）上市及買賣的批准。

Other Information 其他資料

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.

SHARE AWARD SCHEME

The Company has adopted two share award schemes to provide incentives and rewards to certain employees who have contributed to the success of our business. For further details of the schemes, please refer to the Prospectus, 2022 annual report, and the announcements dated August 25, 2023 of the Company.

於2023年2月20日，本公司已完成將222,498,569股內資股轉換為H股，轉換的H股已於2023年2月21日上午九時正起在聯交所上市。

有關本公司H股全流通計劃的詳情，請參閱本公司日期為2022年6月30日、2022年8月15日、2022年8月25日、2022年11月10日、2022年12月5日及2023年2月20日的公告以及日期為2022年7月29日的通函。

進行證券交易的標準守則

本公司已自上市日期起採納標準守則。

我們已向所有董事及監事作出特定查詢，且所有董事及監事確認，彼等於報告期內一直遵守標準守則開展本公司證券交易。

股份激勵計劃

本公司已採納兩項股份激勵計劃，以向對我們業務成功作出貢獻的若干僱員提供激勵及獎勵。有關計劃的進一步詳情，請參閱本公司的招股章程、2022年年度報告及日期為2023年8月25日的公告。

Other Information 其他資料

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 Latest Practicable Date.

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.

企業管治常規

我們竭力維持高標準的企業管治以保障股東利益並提升企業價值及責任感。本公司已自上市日期起採納企業管治守則的守則條文作為本公司企業管治常規的基準。

除以下披露者外，本公司於報告期內及直至最後實際可行日期已遵守企業管治守則所載所有適用守則條文。

根據企業管治守則第C.2.1條守則條文，主席及行政總裁之角色應有區分，並不應由一人同時兼任。鑒於劉博士的經驗、個人資歷及於本公司擔任的職務，以及劉博士自業務開展以來一直擔任本公司總經理，董事會認為劉博士擔任本公司董事會主席及繼續擔任本公司總經理有利於本公司業務前景及營運效率。

儘管這將構成偏離守則條文，董事會認為該架構將不會影響董事會及本公司管理層之間的權責平衡，原因為：(i)董事會將作出的任何決策須經至少大多數董事批准；(ii)劉博士及其他董事知悉並承諾履行其作為董事的受信責任，該等責任要求(其中包括)其應為本公司的利益及以符合本公司最佳利益的方式行事，並基於此為本公司作出決策；及(iii)董事會由經驗豐富的優質人才組成，確保董事會權責平衡，該等人才會定期會面以討論影響本公司營運的事宜。此外，本公司的整體戰略及其他主要業務、財務及經營政策乃經董事會及高級管理層詳盡討論後共同制定。董事會將繼續審閱本公司企業管治架構的有效性，以評估是否需要使董事會主席與行政總裁的職務相分離。

Other Information 其他資料

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.

風險管理及內部控制

董事會知悉其對風險管理及內部控制系統的責任，並對其有效性進行審核。本公司已建立綜合風險管理及內部控制制度及我們認為對我們的業務經營屬合適的相關政策及程序。詳情請參見本公司2022年報「風險管理及內部控制」章節。

作為我們工作的重點，於報告期內，本公司各部門定期進行了內部控制評測，以識別可能影響本公司業務及包括主要營業及財務流程、監管合規及資料安全在內多個方面的風險，內審部門亦對風險管理及內部控制制度的充足性及有效性進行檢查並向董事會匯報，確認於上半年期間沒有收到任何有關本集團僱員及其他與本集團有往來者（如客戶及供應商）提出就財務匯報、內部控制或其他方面可能發生的不正當行為的舉報。我們將不斷優化、持續完善上述各項制度及程序，以促進本公司良性、健康發展。

中期股息

董事會不建議分派截至2023年6月30日止六個月的中期股息。

Other Information 其他資料

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.

CHANGES TO DIRECTORS, SUPERVISORS AND SENIOR MANAGEMENT’S INFORMATION

Pursuant to Rule 13.51B(1) of the Listing Rules, changes to Directors, Supervisors and senior management’s information during the Reporting Period and up to the Latest Practicable Date are set out below:

Directors

- (1) Since February 2023, Dr. LIU Yong has been serving as the general manager and an executive director of Hangzhou Ruibaio Technology Company Limited (杭州瑞佰奧科技有限公司), a subsidiary of the Company.
- (2) Since February 2023, Dr. XIA Lijun ceased to be an independent director of East Money Information Co., Ltd. (東方財富信息股份有限公司), a company listed on the Shenzhen Stock Exchange (stock code: 300059).

審計委員會及審閱財務報表

本公司已成立審計委員會，其書面職權範圍符合上市規則第3.21條及上市規則附錄十四所載的企業管治守則。審計委員會由三名成員組成，包括兩名獨立非執行董事夏立軍博士及袁銘輝教授及一名非執行董事周宏斌博士。夏立軍博士已獲委任為審計委員會主席，並為具備合適專業資格之本公司獨立非執行董事。審計委員會已審閱本集團截至2023年6月30日止六個月的未經審核中期業績，並認為業績符合有關會計準則、規則及規例且已充分作出適當披露。

截至2023年6月30日止六個月的中期財務報告未經審核，惟已由安永會計師事務所根據香港會計師公會頒佈的香港審閱工作準則第2410號「實體獨立核數師對中期財務資料的審閱」審閱。

董事、監事及高級管理人員資料變動

根據上市規則第13.51B(1)條，報告期內及截至最後實際可行日期，董事、監事及高級管理人員資料的變動情況載列如下：

董事

- (1) 自2023年2月起，劉勇博士擔任杭州瑞佰奧科技有限公司（本公司的一間附屬公司）總經理兼執行董事。
- (2) 自2023年2月起，夏立軍博士不再擔任東方財富信息股份有限公司（一家於深圳證券交易所上市的公司，股份代號：300059）的獨立董事。

Other Information 其他資料

- (3) On March 20, 2023, Mr. ZHAO Hui resigned as a non-executive Director and a member of the remuneration and appraisal committee of the Board of the Company, with effect from the same day.
- (3) 於2023年3月20日，趙輝先生辭任本公司董事會非執行董事及薪酬與考核委員會委員職務，其辭任自2023年3月20日起生效。
- (4) On March 20, 2023, Dr. DU Wei resigned as a non-executive Director and a member of the remuneration and appraisal committee of the Board of the Company, with effect from the same day.
- (4) 於2023年3月20日，杜威博士辭任本公司董事會非執行董事及薪酬與考核委員會委員職務，其辭任自2023年3月20日起生效。
- (5) Since March 2023, Dr. ZHOU Hongbin has been serving as a director of Jiangsu Tripod Preclinical Research Laboratories (Group) Co., Ltd..
- (5) 自2023年3月起，周宏斌博士擔任江蘇鼎泰藥物研究(集團)股份有限公司的董事。
- (6) Since March 2023, Professor GAO Feng has been serving as the executive president of the Foshan Institute of pathogenic microbiology.
- (6) 自2023年3月起，GAO Feng教授擔任佛山病原微生物研究院執行院長。
- (7) On April 3, 2023, Dr. FENG Tao resigned as a non-executive Director and a member of the nomination committee of the Board of the Company, with effect from the same day.
- (7) 於2023年4月3日，逢濤博士辭任本公司董事會非執行董事及提名委員會委員職務，其辭任自2023年4月3日起生效。
- (8) Since April 2023, Dr. XIA Lijun ceased to serve as the head of the Department of Accounting at the Antai College of Economics and Management, Shanghai Jiao Tong University.
- (8) 自2023年4月起，夏立軍博士不再擔任上海交通大學安泰經管學院會計系主任。
- (9) On May 11, 2023, Mr. ZHANG Jiaxin and Mr. HU Houwei were appointed as non-executive Directors of the Company, and Ms. CHEN Qingqing was appointed as an executive Director of the Company.
- (9) 於2023年5月11日，張佳鑫先生、胡厚偉先生獲委任為本公司非執行董事及陳青青女士獲委任為本公司執行董事。

Supervisors

- (1) Since February 2023, Ms. QIAO Weiwei has been serving as a supervisor of Hangzhou Ruibaio Technology Company Limited (杭州瑞佰奧科技有限公司), a subsidiary of the Company.

監事

- (1) 自2023年2月起，喬偉偉女士擔任杭州瑞佰奧科技有限公司(本公司的一間附屬公司)監事。

Other Information 其他資料

USE OF PREVIOUS PROCEEDS

Our Company's H Shares were listed on the Stock Exchange on March 31, 2022. After exercise of over-allotment option on April 23, 2022, the net proceeds from the Global Offering amounted to approximately RMB669,714 thousand. Reference is made to the announcement of the Company dated March 20, 2023 (the "Announcement"). In order to improve the efficiency of the use of proceeds, reduce financial expenses and align with the Company's strategic objectives, the Board considered and approved the changes in the use of proceeds on March 20, 2023. As of June 30, 2023, the Company had utilized proceeds of approximately RMB392,432 thousand and unutilized proceeds amounted to approximately RMB277,281 thousand.

The above proceeds have been and will be used in accordance with the purposes set out in the Prospectus and disclosed in the Announcement. As of June 30, 2023, the Company had used the net proceeds from the Global Offering for the following purposes:

前次募集資金使用情況

於2022年3月31日，本公司H股於聯交所上市。在2022年4月23日行使超額配售權後，全球發售募集資金淨額約為人民幣669,714千元。茲提述本公司日期為2023年3月20日的公告（「該公告」），為提高募集資金使用效率，降低財務成本，同時匹配本公司戰略目標，董事會已於2023年3月20日審議通過變更募集資金用途。截至2023年6月30日，本公司已動用募集資金額約人民幣392,432千元，而未動用募集資金額約人民幣277,281千元。

上述募集資金用途已經及將會根據招股章程所載及該公告所披露用途運用，截至2023年6月30日，本公司已將全球發售募集資金淨額用於以下用途：

			Net proceeds used for related purposes (RMB'000)	Percentage of total net proceeds (%)	Actual utilised amount proceeds as of June 30, 2023 (RMB'000) 截至2023年 6月30日 實際已使用 募集資金 (人民幣千元)	Unutilised amount of proceeds as of June 30, 2023 (RMB'000) 截至2023年 6月30日 未使用 募集資金 (人民幣千元)
1.	Continuous optimization, development and commercialization of our HPV vaccine pipeline, including our Core Product, the recombinant HPV 9-valent vaccine REC603, as follows:	繼續優化、開發及商業化HPV疫苗管線，包括我們的核心產品（重組HPV九價疫苗REC603），包括：	316,633	47	119,954	196,679
	(i) The ongoing phase III clinical trial, registration, manufacturing and commercialization of our Core Product, REC603	(i) 核心產品(REC603)正在進行的III期臨床試驗、註冊、生產及商業化	302,393	45	107,700	194,693
	(ii) Preclinical and clinical studies for other HPV vaccine candidates, namely our recombinant HPV bivalent vaccine candidates REC601 and REC602 and adjuvanted second-generation HPV vaccine candidates REC604a and REC604b	(ii) 其他HPV候選疫苗的臨床前及臨床研究，即重組HPV二價候選疫苗REC601及REC602，以及伴佐劑二代HPV候選疫苗REC604a及REC604b	14,240	2	12,254	1,986

Other Information

其他資料

			Net proceeds used for related purposes (RMB'000)	Percentage of total net proceeds (%)	Actual utilised amount proceeds as of June 30, 2023 (RMB'000)	Unutilised amount of proceeds as of June 30, 2023 (RMB'000)
			用於相關用途的 募集資金淨額 (人民幣千元)	佔合計募集資金 淨額的百分比 (%)	截至2023年 6月30日 實際已使用 募集資金 (人民幣千元)	截至2023年 6月30日 未使用 募集資金 (人民幣千元)
2.	Preclinical and clinical studies, registration of recombinant COVID-19 vaccines, namely recombinant COVID-19 vaccine, REC611, mRNA COVID-19 vaccine, REC618	重組新冠病毒疫苗(重組新冠疫苗REC611、新冠mRNA疫苗REC618)的臨床前及臨床研究、註冊	153,454	23	150,156	3,298
3.	Preclinical and clinical studies, registration of recombinant shingles vaccine, REC610	重組帶狀疱疹疫苗REC610的臨床前及臨床研究、註冊	80,464	12	31,074	49,390
4.	Preclinical and clinical studies, registration of adult TB vaccine	成人結核病疫苗的臨床前及臨床研究、註冊	273	-	273	-
5.	Preclinical and clinical studies, registration of recombinant HFMD vaccine, REC605; recombinant influenza quadrivalent vaccine, REC617 and other vaccines	重組手足口病疫苗REC605、重組四價流感疫苗REC617及其他疫苗的臨床前及臨床研究、註冊	3,630	1	3,630	-
(i)	Recombinant HFMD vaccine, REC605	(i) 重組手足口病疫苗REC605	91	-	91	-
(ii)	Recombinant influenza quadrivalent vaccine, REC617	(ii) 重組四價流感疫苗REC617	6	-	6	-
(iii)	Other vaccines	(iii) 其他疫苗	3,533	1	3,533	-

Other Information 其他資料

			Net proceeds used for related purposes (RMB'000)	Percentage of total net proceeds (%)	Actual utilised amount proceeds as of June 30, 2023 (RMB'000) 截至2023年 6月30日 實際已使用 募集資金 (人民幣千元)	Unutilised amount of proceeds as of June 30, 2023 (RMB'000) 截至2023年 6月30日 未使用 募集資金 (人民幣千元)
			用於相關用途的 募集資金淨額 (人民幣千元)	佔合計募集資金 淨額的百分比 (%)		
6.	Further enhancement of R&D capabilities and improvement of operating efficiencies, including:	進一步加強研發能力及提高營運效率，包括：	44,513	7	23,638	20,875
	(i) Enhancement of technology platforms to support continuous demands	(i) 增強技術平台以支持持續需求	18,010	3	7,059	10,951
	(ii) Establishment of manufacturing and quality control system and upgrade of information technology infrastructure	(ii) 建造生產及質量控制系統及升級信息技術基礎設施	26,503	4	16,579	9,924
7.	Working capital and general corporate purposes	營運資金及一般企業用途	70,747	11	63,707	7,040
	Total	合計	669,714	100	392,432	277,282

As disclosed in the Announcement, the Company expects to complete the use of net proceeds from the Global Offering by the end of 2023.

誠如該公告所披露，本公司預計於2023年底前將全球發售所得款項淨額使用完畢。

The Company will continuously review the plan of the use of unutilized net proceeds and revise the plan where necessary so as to cope with the changing market conditions and strive for better business performance of the Company.

本公司將會持續審視未動用募集資金淨額的使用計劃，並在必要時修訂該計劃，以應對不斷變化的市場環境，實現本公司更好的經營業績。

Where the net proceeds are not immediately applied to the above purposes and to the extent permitted by the relevant law and regulations, so long as they are deemed to be in the best interests of our Company, we may hold such funds in short-term deposits with licensed banks or authorized financial institutions in Hong Kong.

倘募集資金淨額並未立即用作上述用途，且在相關法律及法規允許的情況下，只要該等資金被視為符合本公司的最佳利益，我們可將該等資金於香港持牌銀行或獲授權金融機構持作短期存款。

Independent review report 獨立審閱報告



Ernst & Young
27/F, One Taikoo Place
979 King's Road
Quarry Bay, Hong Kong

安永會計師事務所
香港鰂魚涌英皇道 979 號
太古坊一座 27 樓

Tel 電話: +852 2846 9888
Fax 傳真: +852 2868 4432
ey.com

To the board of directors of Jiangsu Recbio Technology Co., Ltd.
(A joint stock company incorporated in the People's Republic of China with limited liability)

致江蘇瑞科生物技術股份有限公司董事會
(於中華人民共和國註冊成立的股份有限公司)

INTRODUCTION

We have reviewed the interim financial information set out on pages 66 to 89 which comprises the condensed consolidated statement of financial position of Jiangsu Recbio Technology Co., Ltd. (the "Company") and its subsidiaries (the "Group") as at 30 June 2023 and the related condensed consolidated statements of profit or loss, and other comprehensive income, changes in equity and cash flows for the six-month period then ended, and explanatory notes. The Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited require the preparation of a report on interim financial information to be in compliance with the relevant provisions thereof and International Accounting Standard 34 *Interim Financial Reporting* ("IAS 34") issued by the International Accounting Standards Board. The directors of the Company are responsible for the preparation and presentation of this interim financial information in accordance with IAS 34. Our responsibility is to express a conclusion on this interim financial information based on our review. Our report is made solely to you, as a body, in accordance with our agreed terms of engagement, and for no other purpose. We do not assume responsibility towards or accept liability to any other person for the contents of this report.

引言

本核數師(以下簡稱「我們」)已審閱載列於第66至89頁的中期財務資料,此中期財務資料包括江蘇瑞科生物技術股份有限公司(以下簡稱「貴公司」)及其附屬公司(以下統稱「貴集團」)於2023年6月30日的簡明綜合財務狀況表與截至該日止六個月期間的相關簡明綜合損益及其他全面收益表、簡明綜合權益變動表及簡明綜合現金流量表,以及附註解釋。香港聯合交易所有限公司證券上市規則規定,就中期財務資料編製的報告必須符合以上規則的有關條文以及國際會計準則理事會頒佈的《國際會計準則》第34號中期財務報告(「《國際財務報告準則》第34號」)。貴公司董事須負責根據《國際會計準則》第34號編製及列報該等中期財務資料。我們的責任是根據我們的審閱對此等中期財務資料作出結論。我們按照委聘之條款僅向整體董事會報告,除此之外本報告別無其他目的。我們不會就本報告的內容向任何其他人士負上或承擔任何責任。



Independent review report 獨立審閱報告

SCOPE OF REVIEW

We conducted our review 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. A review of interim financial information consists of making inquiries, primarily of persons responsible for financial and accounting matters, and applying analytical and other review procedures. A review is substantially less in scope than an audit conducted in accordance with Hong Kong Standards on Auditing and consequently does not enable us to obtain assurance that we would become aware of all significant matters that might be identified in an audit. Accordingly, we do not express an audit opinion.

CONCLUSION

Based on our review, nothing has come to our attention that causes us to believe that the interim financial information is not prepared, in all material respects, in accordance with IAS 34.

The engagement partner on the resulting in this independent auditor's report is Lung Wai, Shun.

Ernst & Young

Certified Public Accountants

Hong Kong

25 August 2023

審閱範圍

我們已根據香港會計師公會頒佈的香港審閱委聘準則第2410號由實體的獨立核數師執行中期財務資料審閱進行審閱。審閱中期財務資料包括主要向負責財務及會計事務的人員作出查詢，及應用分析性及其他審閱程序。審閱的範圍遠較根據《香港審計準則》進行審核的範圍為小，故不能令我們可保證我們將知悉在審計中可能被發現的所有重大事項。因此，我們不會發表審計意見。

結論

按照我們的審閱，我們並無發現任何事項，令我們相信中期財務資料未有在各重大方面根據《國際會計準則》第34號擬備。

出具本獨立核數師報告的審計項目合夥人是孫龍偉。

安永會計師事務所

執業會計師

香港

2023年8月25日

Interim Condensed Consolidated Statement of Profit or Loss and Other Comprehensive Income

中期簡明綜合損益及其他全面收益表

For the six months ended 30 June 2023
截至2023年6月30日止六個月

				Six months ended 30 June	
				截至6月30日止六個月	
				2023	2022
				2023年	2022年
				RMB'000	RMB'000
				人民幣千元	人民幣千元
				(Unaudited)	(Unaudited)
				(未經審核)	(未經審核)
		<i>Notes</i>			
		<i>附註</i>			
Other income and gains	其他收入及收益	5	59,929	78,593	
Other expenses	其他開支	6	(142)	-	
Research and development costs	研發成本		(247,822)	(354,469)	
Administrative expenses	行政開支		(78,087)	(76,669)	
Selling and distribution expenses	銷售及分銷開支		(5,439)	(3,778)	
Finance costs	財務成本	7	(5,380)	(794)	
LOSS BEFORE TAX	除稅前虧損	8	(276,941)	(357,117)	
Income tax expense	所得稅開支	9	-	-	
LOSS AND TOTAL COMPREHENSIVE LOSS FOR THE PERIOD	期內虧損及全面虧損總額		(276,941)	(357,117)	
Attributable to:	下列人士應佔：				
Owners of the parent	母公司擁有人		(272,549)	(349,686)	
Non-controlling interests	非控股權益		(4,392)	(7,431)	
			(276,941)	(357,117)	
Other comprehensive income:	其他全面收益：				
Exchange differences on translation of foreign operations	換算海外業務所產生之匯兌差額		3,425	-	
Total comprehensive income	全面收益總額		(273,516)	(357,117)	
Attributable to:	下列人士應佔：				
Owners of the parent	母公司擁有人		(269,124)	(349,686)	
Non-controlling interests	非控股權益		(4,392)	(7,431)	
			(273,516)	(357,117)	
LOSS PER SHARE ATTRIBUTABLE TO ORDINARY EQUITY HOLDERS OF THE PARENT	母公司普通權益持有人應佔每股虧損				
Basic and diluted (RMB)	基本及攤薄(人民幣)	11	(0.57)	(0.75)	

Interim Condensed Consolidated Statement of Financial Position

中期簡明綜合財務狀況表

30 June 2023
2023年6月30日

31 December
2022
2022年
12月31日
RMB'000
人民幣千元
(Audited)
(經審核)

		Notes 附註	30 June 2023 2023年 6月30日 RMB'000 人民幣千元 (Unaudited) (未經審核)	31 December 2022 2022年 12月31日 RMB'000 人民幣千元 (Audited) (經審核)
NON-CURRENT ASSETS	非流動資產			
Property, plant and equipment	物業、廠房及設備	12	618,253	558,710
Other intangible assets	其他無形資產		43,245	33,505
Right-of-use assets	使用權資產		64,458	72,542
Goodwill	商譽		9,305	9,305
Other non-current assets	其他非流動資產	13	247,398	215,625
Total non-current assets	非流動資產總額		982,659	889,687
CURRENT ASSETS	流動資產			
Inventories	存貨		41,990	56,160
Prepayments, other receivables and other assets, current	預付款項、其他應收款項及其他資產，即期		121,886	38,610
Cash and bank balances	現金及銀行結餘	14	1,098,725	1,325,150
Total current assets	流動資產總額		1,262,601	1,419,920
CURRENT LIABILITIES	流動負債			
Trade payables	貿易應付款項	15	68,708	62,517
Lease liabilities	租賃負債		27,119	20,361
Interest-bearing bank and other borrowings	計息銀行及其他借款		22,129	1,394
Other payables and accruals	其他應付款項及應計費用	16	198,208	244,711
Total current liabilities	流動負債總額		316,164	328,983
NET CURRENT ASSETS	流動資產淨額		946,437	1,090,937
TOTAL ASSETS LESS CURRENT LIABILITIES	資產總額減流動負債		1,929,096	1,980,624

Interim Condensed Consolidated Statement of Financial Position

中期簡明綜合財務狀況表

30 June 2023
2023年6月30日

		30 June 2023 2023年 6月30日 RMB'000 人民幣千元 (Unaudited) (未經審核)	31 December 2022 2022年 12月31日 RMB'000 人民幣千元 (Audited) (經審核)
		Notes 附註	
NON-CURRENT LIABILITIES	非流動負債		
Interest-bearing bank and other borrowings	計息銀行及其他借款	487,107	231,621
Lease liabilities	租賃負債	20,407	29,251
Deferred income	遞延收入	60,779	61,144
Deferred tax liabilities	遞延稅項負債	5,530	5,530
Total non-current liabilities	非流動負債總額	573,823	327,546
Net Assets	淨資產	1,355,273	1,653,078
EQUITY	權益		
Equity attributable to owners of the parent	母公司擁有人應佔權益		
Share capital	股本	17 482,963	482,963
Treasury shares	庫存股	17 (41,201)	-
Reserves	儲備	926,701	1,178,913
Non-controlling interests	非控股權益	(13,190)	(8,798)
Total equity	權益總額	1,355,273	1,653,078

Interim Condensed Consolidated Statement of Changes in Equity

中期簡明綜合權益變動表

For the six months ended 30 June 2022
截至2022年6月30日止六個月

		Equity attributable to owners of the parent 母公司擁有人應佔權益									
		Share capital	Treasury shares	Share premium*	Other Reserves*	Exchange fluctuation reserve*	Share-based payments reserve*	Accumulated losses*	Non-Controlling interests	Total equity	
		股本	庫存股	股份溢價*	其他儲備*	匯兌波動儲備*	以股份為基礎的付款儲備*	累計虧損*	總額	非控股權益	
		RMB' 000	RMB' 000	RMB' 000	RMB' 000	RMB' 000	RMB' 000	RMB' 000	RMB' 000	RMB' 000	
		人民幣千元	人民幣千元	人民幣千元	人民幣千元	人民幣千元	人民幣千元	人民幣千元	人民幣千元	人民幣千元	
At 1 January 2023 (audited)	於2023年1月1日(經審核)	482,963	-	2,583,009	163,938	-	185,505	(1,753,539)	1,661,876	(8,798)	1,653,078
Loss and total comprehensive loss for the period	期內虧損及全面虧損總額	-	-	-	-	-	-	(272,549)	(272,549)	(4,392)	(276,941)
Exchange differences on translation of the financial statements of subsidiaries	換算附屬公司財務報表產生之匯兌差異	-	-	-	-	3,425	-	-	3,425	-	3,425
Shares purchased under 2022 H Share Incentive Scheme (note 17)	根據2022年H股激勵計劃購入的股份(附註17)	-	(41,201)	-	-	-	-	-	(41,201)	-	(41,201)
Share-based payments	以股份為基礎的付款	-	-	-	-	-	16,912	-	16,912	-	16,912
At 30 June 2023 (unaudited)	於2023年6月30日(未經審核)	482,963	(41,201)	2,583,009	163,938	3,425	202,417	(2,026,088)	1,368,463	(13,190)	1,355,273

* These reserve accounts comprise the consolidated reserves of RMB926,701,000 in the interim condensed consolidated statements of financial position as 30 June 2023.

* 該等儲備賬包括於2023年6月30日中期簡明綜合財務狀況表內的綜合儲備人民幣926,701,000元。

Interim Condensed Consolidated Statement of Cash Flows

中期簡明綜合現金流量表

For the six months ended 30 June 2023
截至2023年6月30日止六個月

		Six months ended 30 June 截至6月30日止六個月	
		2023 2023年 RMB'000 人民幣千元 (Unaudited) (未經審核)	2022 2022年 RMB'000 人民幣千元 (Unaudited) (未經審核)
		Notes 附註	
CASH FLOWS FROM OPERATING ACTIVITIES	經營活動所得現金流量		
Loss before tax:	除稅前虧損：	(276,941)	(357,117)
Adjustments for:	經調整：		
Finance costs	財務成本	7	794
Bank interest income	銀行利息收入	5	(7,128)
Provision of impairment for inventories	存貨減值撥備	8	-
Depreciation of plant and equipment	廠房及設備折舊	8	12,765
Depreciation of right-of-use assets	使用權資產折舊	8	5,387
Amortization of other non-current assets	其他非流動資產攤銷	8	161
Amortization of other current assets	其他流動資產攤銷	8	1,632
Amortization of other intangible assets	其他無形資產攤銷	8	-
Net gains from changes in fair value of financial assets at FVTPL	按公平值計入損益的金融資產的公平值變動產生的淨收益	5	(2,553)
Share-based payments expense	以股份為基礎的付款開支	16,912	24,402
Foreign exchange differences, net	匯兌差額淨額	5	(66,877)
Gain on disposal of items of right-of-use assets	出售使用權資產項目的收益	5	-
Loss/(Gain) on disposal of items of property, plant and equipment	出售物業、廠房及設備項目的虧損/(收益)	6	(1)
Decrease/(Increase) in inventories	存貨減少/(增加)	10,112	(7,704)
(Increase)/Decrease in prepayments and other receivables	預付款項及其他應收款項(增加)/減少	(26,127)	26,790
Increase in trade payables	貿易應付款項增加	6,191	11,652
(Decrease)/Increase in other payables and accruals	其他應付款項及應計費用(減少)/增加	(83,890)	108,297
Increase in other non-current assets	其他非流動資產增加	(2,655)	-
(Decrease)/Increase in deferred income	遞延收益(減少)/增加	(365)	10,000
Net cash flows used in operating activities	經營活動所用現金流量淨額	(370,684)	(239,500)

Interim Condensed Consolidated Statement of Cash Flows

中期簡明綜合現金流量表

For the six months ended 30 June 2023
截至2023年6月30日止六個月

		Six months ended 30 June 截至6月30日止六個月	
		2023 2023年 RMB'000 人民幣千元 (Unaudited) (未經審核)	2022 2022年 RMB'000 人民幣千元 (Unaudited) (未經審核)
		Notes 附註	
CASH FLOWS FROM INVESTING ACTIVITIES		投資活動所得現金流量	
Increase of financial products included in financial assets at FVTPL	計入按公平值計入損益的金融資產的金融產品增加	–	(190,000)
Purchases of items of property, plant and equipment	購買物業、廠房及設備項目	(101,787)	(231,452)
Purchases of items of other intangible assets	購買其他無形資產項目	(11,790)	–
Interest received	已收利息	24,785	6,116
Proceeds from investment income of financial products included in financial assets at FVTPL	計入按公平值計入損益的金融資產的金融產品的投資收入所得款項	23	2,065
Purchase of time deposits	購買定期存款	(90,821)	(238,154)
Proceeds from withdrawal of time deposits	提取定期存款所得款項	137,451	10,000
Net cash flows used in investing activities	投資活動所用現金流量淨額	(42,139)	(641,425)
CASH FLOWS FROM FINANCING ACTIVITIES		融資活動所得現金流量	
Repayment of bank loans	償還銀行貸款	(752)	–
Receipt of bank loans	收取銀行貸款	228,705	38,091
Receipt of funds related to sale and leaseback	收取與售後回租有關的資金	48,000	–
Proceeds from issue of shares	股份發行所得款項	–	669,713
Capital contributions from non-controlling shareholders	非控股股東注資	–	4,500
Lease payment	租賃付款	(4,002)	(6,526)
Interest paid	已付利息	(3,996)	–
Shares purchased under 2022 H Share Incentive Scheme	根據2022年H股激勵計劃購入的股份	(100,000)	–
Payments for listing expense	上市開支付款	–	(5,723)
Net cash flows from financing activities	融資活動所得現金流量淨額	167,955	700,055

Interim Condensed Consolidated Statement of Cash Flows

中期簡明綜合現金流量表

For the six months ended 30 June 2023
截至2023年6月30日止六個月

		Six months ended 30 June 截至6月30日止六個月	
		2023 2023年 RMB'000 人民幣千元 (Unaudited) (未經審核)	2022 2022年 RMB'000 人民幣千元 (Unaudited) (未經審核)
		Notes 附註	
NET DECREASE IN CASH AND CASH EQUIVALENTS	現金及現金等價物減少淨額	(244,868)	(180,870)
Cash and cash equivalents at beginning of period	期初現金及現金等價物	1,169,092	1,172,562
Effect of foreign exchange rate changes	匯率變動的影響	33,668	66,877
CASH AND CASH EQUIVALENTS AT THE END OF THE PERIOD	期末現金及現金等價物	957,892	1,058,569
ANALYSIS OF BALANCES OF CASH AND CASH EQUIVALENTS	現金及現金等價物的結餘分析		
Cash and cash equivalents as stated in the interim condensed consolidated statement of financial position	中期簡明綜合財務狀況表內所述現金及現金等價物	1,098,725	1,296,723
Time deposits with original maturity of more than three months but less than one year when acquired	於收購時原到期日多於三個月但少於一年的定期存款	(140,833)	(238,154)
Cash and cash equivalents as stated in the interim condensed consolidated statements of cash flows	中期簡明綜合現金流量表所列示的現金及現金等價物	957,892	1,058,569

Notes to Interim Condensed Consolidated Financial Information

中期簡明綜合財務資料附註

30 June 2023
2023年6月30日

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.

1. 公司資料

江蘇瑞科生物技術股份有限公司為於中華人民共和國（「中國」）註冊成立的股份有限公司。本公司的註冊辦事處位於中國江蘇省泰州市醫藥高新區藥城大道888號。

於報告期內，江蘇瑞科生物技術股份有限公司及其附屬公司（統稱「本集團」）主要於中國內地從事疫苗研發。

本公司於2022年3月31日在香港聯合交易所有限公司（「聯交所」）主板上市。

2. 編製基準

截至2023年6月30日止六個月的中期簡明綜合財務資料乃根據國際會計準則第34號中期財務報告（「國際會計準則第34號」）編製。本中期簡明綜合財務資料並未包括年度財務報表所需的所有資料及披露事項，而應與本集團截至2022年12月31日止年度的年度綜合財務報表一併閱讀。除另有說明外，本中期財務資料以人民幣（「人民幣」）呈列，所有金額均約整至最接近的千元（人民幣千元）。

Notes to Interim Condensed Consolidated Financial Information

中期簡明綜合財務資料附註

30 June 2023
2023年6月30日

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

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.

3. 會計政策變動

除就本期間的財務資料首次採納下列經修訂國際財務報告準則（「國際財務報告準則」）外，編製中期簡明綜合財務資料所採用之會計政策與編製本集團截至2022年12月31日止年度之年度綜合財務報表所採納者一致。

國際財務報告準則第17號	保險合約
國際財務報告準則第17號（修訂本）	保險合約
國際財務報告準則第17號（修訂本）	初次應用國際財務報告準則第17號及國際財務報告準則第9號 – 比較資料
國際會計準則第1號及國際財務報告準則實務公告第2號（修訂本）	會計政策披露
國際會計準則第8號（修訂本）	會計估計的定義
國際會計準則第12號（修訂本）*	單一交易產生的資產及負債的遞延稅項
國際會計準則第12號（修訂本）	國際稅務改革 – 第二支柱範本規則

採納經修訂準則對本集團中期簡明綜合財務資料並無重大財務影響。

* 該等修訂對本集團的中期簡明綜合財務報表並無影響。

Notes to Interim Condensed Consolidated Financial Information

中期簡明綜合財務資料附註

30 June 2023
2023年6月30日

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.

4. 經營分部資料

分部資料

就資源分配及表現評估而言，本集團首席執行官（即主要營運決策者）於作出分配資源及評估本集團整體表現的決定時審閱綜合業績，因此，本集團僅有一個可呈報分部，且並無呈列此單一分部的進一步分析。

地區資料

本集團的非流動資產均位於中國，因此，並無呈列非流動資產的其他相關地區資料。

有關主要客戶的資料

於報告期間，本集團並無產生收益，故毋須披露客戶分析。

Notes to Interim Condensed Consolidated Financial Information

中期簡明綜合財務資料附註

30 June 2023
2023年6月30日

5. OTHER INCOME AND GAINS

An analysis of other income and gains is as follows:

5. 其他收入及收益

其他收入及收益分析如下：

		Six months ended 30 June 截至6月30日止六個月	
		2023 2023年 RMB'000 人民幣千元 (Unaudited) (未經審核)	2022 2022年 RMB'000 人民幣千元 (Unaudited) (未經審核)
Other income	其他收入		
Government grants related to income*	與收入有關的政府補助*	4,597	1,968
Bank interest income	銀行利息收入	24,785	7,128
Others	其他	–	67
		29,382	9,163
Other gains	其他收益		
Gain on fair value changes of financial assets	金融資產公平值變動收益	23	2,553
Foreign exchange gains, net	外匯收益淨額	30,242	66,877
Gain on disposal of items of right-of-use assets and lease liabilities	出售使用權資產及租賃負債項目的收益	265	–
Others	其他	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.

* 已收取與收入相關之政府補助用於補償本集團的研發開支及業務營運。

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6. OTHER EXPENSES

6. 其他開支

		Six months ended 30 June 截至6月30日止六個月	
		2023 2023年 RMB'000 人民幣千元 (Unaudited) (未經審核)	2022 2022年 RMB'000 人民幣千元 (Unaudited) (未經審核)
Donation	捐贈	100	–
Loss on disposal of items of property, plant and equipment	出售物業、廠房及設備項目的虧損	7	–
Others	其他	35	–
		142	–

7. FINANCE COSTS

7. 財務成本

An analysis of finance costs is as follows:

財務成本的分析如下：

		Six months ended 30 June 截至6月30日止六個月	
		2023 2023年 RMB'000 人民幣千元 (Unaudited) (未經審核)	2022 2022年 RMB'000 人民幣千元 (Unaudited) (未經審核)
Interest on bank borrowings	銀行借款利息	7,692	1,785
Less: Interest capitalized	減：資本化利息	3,428	1,785
Interest on lease liabilities	租賃負債利息	1,116	794
		5,380	794

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8. LOSS BEFORE INCOME TAX

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

8. 除所得稅前虧損

本集團的除稅前虧損乃經扣除／(計入)下列各項後得出：

		Six months ended 30 June 截至6月30日止六個月	
		2023 2023年 RMB'000 人民幣千元 (Unaudited) (未經審核)	2022 2022年 RMB'000 人民幣千元 (Unaudited) (未經審核)
		Notes 附註	
Depreciation of property, plant and equipment*	物業、廠房及設備折舊*	19,201	12,765
Depreciation of right-of-use assets*	使用權資產折舊*	8,824	5,387
Amortization of other non-current assets*	其他非流動資產攤銷*	225	161
Amortization of other current assets*	其他流動資產攤銷*	1,649	1,632
Amortization of other intangible assets*	其他無形資產攤銷*	2,050	-
Provision of impairment for inventories	存貨減值撥備	4,058	-
Interest on lease liabilities	租賃負債利息	1,116	794
Expense relating to short-term leases*	有關短期租賃的開支*	1,338	2,113
Research and development costs	研發成本	247,822	354,469
Loss/(gain) on disposal of items of property, plant and equipment	出售物業、廠房及設備項目的虧損／(收益)	7	(1)
Gain on fair value changes of financial assets	金融資產公平值變動收益	(23)	(2,553)
Government grants related to income	與收入有關的政府補助	(4,597)	(1,968)
Foreign exchange differences, net	匯兌差額淨額	(30,242)	(66,877)
Bank interest income	銀行利息收入	(24,785)	(7,128)
Auditor's remuneration*	核數師酬金*	500	500
Listing expense*	上市開支*	-	9,932
Employee benefit expense* (excluding directors', chief executive's and supervisors' remuneration):	僱員福利開支* (不包括董事、最高行政人員及監事的薪酬):		
Wages and salaries	工資及薪金	59,707	55,363
Share-based payments expense	以股份為基礎的付款開支	6,347	8,860
Pension scheme contributions, social welfare and other welfare	退休金計劃供款、社會福利及其他福利	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.

* 報告期及截至2023年6月30日及2022年6月30日止六個月的物業、廠房及設備折舊、使用權資產折舊、其他非流動資產攤銷、其他流動資產攤銷、其他無形資產攤銷、有關短期租賃的開支、核數師酬金、上市開支及僱員福利開支載於中期簡明綜合損益及其他全面收益表的「銷售及分銷開支」、「行政開支」及「研發成本」。

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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.

9. 所得稅

根據中國企業所得稅法及相關法規（「企業所得稅法」），本集團須就各項應課稅收入按25%稅率繳納企業所得稅。

本集團的中國實體處於虧損狀況，並無估計應課稅溢利。

根據中國企業所得稅法及相關法規（「企業所得稅法」），本公司須就應課稅收入按25%稅率繳納企業所得稅。北京安百勝於2022年12月30日取得高科技企業證書，並有權於2022年至2024年三年內享有15%的優惠稅率。

根據香港稅務條例，HK Recbio Limited 須就應課稅溢利（最高2,000,000港元）按8.25%稅率繳納利得稅；應課稅溢利超過2,000,000港元的任何部分則按16.5%稅率繳納利得稅。

Six months ended 30 June 截至6月30日止六個月

		2023 2023年 RMB'000 人民幣千元 (Unaudited) (未經審核)	2022 2022年 RMB'000 人民幣千元 (Unaudited) (未經審核)
Current income tax	即期所得稅		
Charge for the period	期內支出	—	—
Deferred income tax	遞延所得稅	—	—
Total tax (credit)/charge for the period	期內稅項(抵免)/支出總額	—	—

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9. INCOME TAX (Continued)

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:

9. 所得稅(續)

按本公司及其附屬公司所在司法權區的法定稅率計算適用於除稅前虧損的稅項開支與按實際稅率計算的稅項開支對賬，以及適用稅率（即法定稅率）與實際稅率的對賬如下：

		Six months ended 30 June 截至6月30日止六個月	
		2023 2023年 RMB'000 人民幣千元 (Unaudited) (未經審核)	2022 2022年 RMB'000 人民幣千元 (Unaudited) (未經審核)
Loss before tax	除稅前虧損	(276,941)	(357,117)
Tax at the statutory tax rate (25%)	按法定稅率計算的稅項(25%)	(69,235)	(89,279)
Effect of different tax rate of a subsidiary operating in other jurisdictions and tax concession	於其他司法權區經營的一間附屬公司的不同稅率及稅務減免的影響	6,059	6,167
Tax effect of income that is exempt from taxation	免稅收入的稅務影響	(11)	—
Expenses not deductible for tax	不可扣稅開支	4,966	6,488
Additional deductible allowance for qualified research and development costs	合資格研發成本的額外可扣減撥備	(53,285)	(59,967)
Tax losses and deductible temporary differences not recognized	未確認稅項虧損及可扣減暫時性差額	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.

由於該等虧損及暫時差額乃由已錄得虧損一段時間的本集團所產生，且認為不大可能出現可用以抵銷稅項虧損的應課稅溢利，故並無就該等虧損及暫時差額確認遞延稅項資產。

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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:

10. 股息

截至2023年及2022年6月30日止六個月，本公司並無派發或宣派任何股息。

11. 母公司普通權益持有人應佔每股虧損

截至2023年及2022年6月30日止期間的每股基本虧損金額乃根據母公司普通股擁有人應佔期內虧損及經計及公司改制為股份公司（本公司資本化發行）及資本溢價股本轉撥已於2021年1月1日生效的追溯調整後假設已發行普通股加權平均數計算。

計算每股基本及攤薄虧損乃基於：

		Six months ended 30 June 截至6月30日止六個月	
		2023 2023年 RMB'000 人民幣千元 (Unaudited) (未經審核)	2022 2022年 RMB'000 人民幣千元 (Unaudited) (未經審核)
Loss	虧損		
Loss attributable to ordinary equity holders of the parent, used in the basic and diluted loss per share calculation (RMB'000)	母公司普通權益持有人應佔虧損，用於計算每股基本及攤薄虧損（人民幣千元）	(272,549)	(349,686)
Shares	股份		
Weighted average number of ordinary shares in issue during the period used in the basic and diluted loss per share calculation	用於計算每股基本及攤薄虧損的期內已發行普通股的加權平均數	482,126,649	465,318,599
Loss per share (basic and diluted) (RMB)	每股虧損（基本及攤薄）（人民幣）	(0.57)	(0.75)

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12. PROPERTY, PLANT AND EQUIPMENT

During the six months ended 30 June 2023, the Group acquired assets at a cost of RMB90,542,000 (30 June 2022: RMB91,614,000).

Assets with a net book value of RMB7,000 were disposed of by the Group during the six months ended 30 June 2023 (30 June 2022: RMB130), resulting in a net loss on disposal of RMB7,000 during the six months ended 30 June 2023 (30 June 2022: a net gain on disposal of RMB1,000).

13. OTHER NON-CURRENT ASSETS

12. 物業、廠房及設備

截至2023年6月30日止六個月，本集團按成本人民幣90,542,000元（2022年6月30日：人民幣91,614,000元）收購資產。

於截至2023年6月30日止六個月，本集團出售賬面淨值為人民幣7,000元（2022年6月30日：人民幣130元）的資產，導致截至2023年6月30日止六個月出售淨虧損為人民幣7,000元（2022年6月30日：出售淨收益人民幣1,000元）。

13. 其他非流動資產

		30 June 2023 2023年 6月30日 RMB'000 人民幣千元 (Unaudited) (未經審核)	31 December 2022 2022年 12月31日 RMB'000 人民幣千元 (Audited) (經審核)
Time deposits	定期存款	—	31,404
Prepayment for purchase of property, plant and equipment	購買物業、廠房及設備的預付款項	243,333	182,585
Prepayment for long-term insurance*	長期保險預付款項*	1,665	1,636
Deposits-non-current**	按金－非即期**	2,400	—
		247,398	215,625

* This is the prepayment of long-term insurance, which is amortized over its service period of 6.5 years.

** The Company signed a finance lease contract with Zhongguancun Science-Tech Leasing Co., Ltd. ("Zhongguancun") with regard to the sale and leaseback for certain equipment, of which the related deposit being paid to Zhongguancun was amounting to RMB2,400,000.

* 此乃長期保險的預付款項，按6.5年的服務期進行攤銷。

** 本公司與中關村科技租賃股份有限公司（「中關村」）就若干設備的售後回租簽署融資租賃合約，其中支付予中關村的相關按金為人民幣2,400,000元。

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14. CASH AND BANK BALANCES

14. 現金及銀行結餘

		30 June 2023 2023年 6月30日 RMB'000 人民幣千元 (Unaudited) (未經審核)	31 December 2022 2022年 12月31日 RMB'000 人民幣千元 (Audited) (經審核)
Cash at banks	銀行存款	957,893	1,169,092
Time deposits	定期存款	140,832	156,058
		1,098,725	1,325,150
Denominated in:	以下列項目計值：		
RMB	人民幣	139,760	205,393
USD	美元	702,243	701,487
HKD	港元	256,722	418,270

The RMB is not freely convertible into other currencies, however, under Mainland China's Foreign Exchange Control Regulations and Administration of Settlement, Sale and Payment of Foreign Exchange Regulations, the Group is permitted to exchange RMB for other currencies through banks authorized to conduct foreign exchange business.

Cash at banks earns interest at floating rates based on daily bank deposit rates. The bank balances are deposited with creditworthy banks with no history of default.

人民幣不可自由兌換為其他貨幣。然而，根據中國內地《外匯管理條例》及《結匯、售匯及付匯管理規定》，本集團可獲准通過獲授權進行外匯業務的銀行將人民幣兌換為其他貨幣。

銀行存款按每日銀行存款利率之浮動利率賺取利息。銀行結餘存放於信譽良好且並無拖欠記錄的銀行。

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15. 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 2023年 6月30日 RMB'000 人民幣千元 (Unaudited) (未經審核)	31 December 2022 2022年 12月31日 RMB'000 人民幣千元 (Audited) (經審核)
Within 1 year	一年內	68,636	62,507
Over 1 year	超過一年	72	10
		68,708	62,517

15. 貿易應付款項

於2023年6月30日及2022年12月31日，貿易應付款項根據發票日期的賬齡分析如下：

16. OTHER PAYABLES AND ACCRUALS

		30 June 2023 2023年 6月30日 RMB'000 人民幣千元 (Unaudited) (未經審核)	31 December 2022 2022年 12月31日 RMB'000 人民幣千元 (Audited) (經審核)
Accrued research and development expenses	應計研發開支	49,494	105,749
Accrued renovation and construction expenses	應計裝修及建築開支	52,653	35,157
Payable for property, plant and equipment	應付物業、廠房及設備款項	45,647	25,755
Payroll payable	應付薪酬	22,917	43,050
Other payables	其他應付款項	15,507	9,222
Deposits received from vendors	自賣方收取的按金	11,990	25,778
		198,208	244,711

16. 其他應付款項及應計費用

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17. SHARE CAPITAL/TREASURY SHARES

Shares

		30 June 2023 2023年 6月30日 RMB'000 人民幣千元 (Unaudited) (未經審核)	31 December 2022 2022年 12月31日 RMB'000 人民幣千元 (Audited) (經審核)
Issued and fully paid	已發行及繳足		
482,963,000 (2022: 482,963,000) ordinary shares	482,963,000股(2022年：482,963,000股)普通股	482,963	482,963

A summary of movements in the Company's share capital and treasury shares is as follows:

本公司股本及庫存股變動概列如下：

Share capital	股本	Total 總計 RMB'000 人民幣千元 (Unaudited) (未經審核)
As at 30 June 2023 and 31 December 2022	於2023年6月30日及2022年12月31日	482,963
Treasury shares	庫存股	Total 總計 RMB'000 人民幣千元 (Unaudited) (未經審核)
As at 31 December 2022 and 1 January 2023	於2022年12月31日及2023年1月1日	-
Shares purchased under 2022 H Share Incentive Scheme (a)	根據2022年H股激勵計劃購入的股份(a)	(41,201)
As at 30 June 2023	於2023年6月30日	(41,201)

Notes:

附註：

(a) On 16 September 2022, shareholders of the Group approved the adoption of the 2022 H share incentive scheme (the "2022 H Share Incentive Scheme"). Pursuant to the 2022 H Share Incentive Scheme, a total of 2,644,500 shares were purchased from the secondary market by the trustee under the scheme at a total consideration of RMB41,201,000 before expenses during the reporting period.

(a) 於2022年9月16日，本集團股東批准採納2022年H股激勵計劃（「2022年H股激勵計劃」）。根據2022年H股激勵計劃，受託人於報告期內以總代價人民幣41,201,000元於二級市場上購入合共2,644,500股股份。

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18. COMMITMENTS

The Group had the following capital commitments as at 30 June 2023 and 31 December 2022:

		30 June 2023 2023年 6月30日 RMB'000 人民幣千元 (Unaudited) (未經審核)	31 December 2022 2022年 12月31日 RMB'000 人民幣千元 (Audited) (經審核)
Contracted, but not provided for:	已訂約但尚未撥備：		
Building	樓宇	58,475	32,672
Plant and machinery	廠房及機器	43,677	36,252
		102,152	68,924

18. 承擔

於2023年6月30日及2022年12月31日，本集團的資本承擔如下：

19. RELATED PARTY TRANSACTIONS

Compensation of key management personnel of the Group:

		Six months ended 30 June 截至6月30日止六個月	
		2023 2023年 RMB'000 人民幣千元 (Unaudited) (未經審核)	2022 2022年 RMB'000 人民幣千元 (Unaudited) (未經審核)
Short term employee benefits	短期僱員福利	8,628	7,896
Post-employment benefits	離職後福利	215	198
Equity-settled share-based payment expense	以權益結算的以股份為基礎的 付款開支	10,565	15,542
		19,408	23,636

19. 關聯方交易

本集團關鍵管理人員薪酬：

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20. FAIR VALUE AND FAIR VALUE HIERARCHY OF FINANCIAL INSTRUMENTS

Fair value

Management has assessed that the fair values of cash and bank balances, trade payables, financial assets included in prepayments, other receivables and other assets, and financial liabilities included in other payables and accruals, and interest-bearing bank and other borrowings approximate to their carrying amounts largely due to the short term maturities of these instruments. The fair values of the other non-current financial liabilities which including interest-bearing bank and other borrowings have been calculated by discounting the expected future cash flows using rates currently available for instruments with similar terms, credit risk and remaining maturities and the fair values approximate to their carrying amounts.

The fair values of the financial assets and liabilities are included at the amount at which the instrument could be exchanged in a current transaction between willing parties, other than in a forced or liquidation sale. The following methods and assumptions were used to estimate the fair values:

The changes in fair value as a result of the Group's own non-performance risk for interest-bearing bank and other borrowings as at 30 June 2023 and 31 December 2022 were assessed to be insignificant. Management has assessed that the fair values of the non-current portion of time deposits and interest-bearing bank and other borrowings approximate to their carrying amounts.

The Group's finance department is responsible for determining the policies and procedures for the fair value measurement of financial instruments. At the end of the reporting period, the finance department analyses the movements in the values of financial instruments and determines the major inputs applied in the valuation. The directors review the results of the fair value measurement of financial instruments periodically for financial reporting.

20. 金融工具的公平值及公平值層級

公平值

管理層已評估，主要由於該等工具的短期到期性質，現金及銀行結餘、貿易應付款項、計入預付款項、其他應收款項及其他資產的金融資產以及計入其他應付款項及應計費用的金融負債及計息銀行及其他借款之公平值與其賬面值相若。其他非流動金融負債（包括計息銀行及其他借款）的公平值已按條款、信貸風險及剩餘期限方面類似的工具的現時可用利率折現預期未來現金流量計算，公平值與其賬面值相若。

金融資產及負債之公平值以自願交易方（強迫或清盤出售除外）當前交易中該工具之可交易金額入賬。下列方法及假設用於估計公平值：

由於本集團於2023年6月30日及2022年12月31日的計息銀行及其他借款本身的不履約風險，公平值變動被評估為不重大。管理層已評估定期存款及計息銀行及其他借款的非即期部分的公平值與其賬面值相若。

本集團的財務部門負責釐定金融工具公平值計量的政策及程序。於報告期末，財務部門分析金融工具價值的變動，並釐定估值所應用的主要輸入數據。董事定期審閱金融工具公平值計量的結果，以供財務報告之用。

Notes to Interim Condensed Consolidated Financial Information 中期簡明綜合財務資料附註

30 June 2023
2023年6月30日

21. EVENTS AFTER THE REPORTING PERIOD

There were no significant events subsequent to 30 June 2023.

22. APPROVAL OF THE FINANCIAL STATEMENTS

The financial statements were approved and authorized for issue by the board of directors on August 25, 2023.

21. 報告期後事項

於2023年6月30日之後概無重大事項。

22. 財務報表的批准

本財務報表已於2023年8月25日獲董事會批准及授權刊發。

Definitions and Glossary of Technical Terms

釋義及技術詞彙

DEFINITIONS

釋義

<p>“Audit Committee” 「審計委員會」</p>	<p>指</p>	<p>the audit committee of our Company; 本公司審計委員會；</p>
<p>“Beijing ABZYMO” 「北京安百勝」</p>	<p>指</p>	<p>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; 北京安百勝生物科技有限公司，一家於2011年3月7日在中國成立的有限責任公司，為本公司的全資附屬公司；</p>
<p>“Board” 「董事會」</p>	<p>指</p>	<p>the board of Directors of our Company; 本公司董事會；</p>
<p>“CDE” 「藥品審評中心」</p>	<p>指</p>	<p>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; 國家藥品監督管理局藥品審評中心，為國家藥監局轄下的分支機構，主要負責IND及BLA的審核及批准；</p>
<p>“CG Code” 「企業管治守則」</p>	<p>指</p>	<p>the Corporate Governance Code contained in Appendix 14 to the Listing Rules, as amended, supplemented or otherwise modified from time to time; 上市規則附錄十四所載企業管治守則(經不時修訂、補充或以其他方式修改)；</p>
<p>“China” or “PRC” 「中國」</p>	<p>指</p>	<p>the People’s Republic of China, but for the purpose of the report and for geographical reference only and except where the context requires, references in the report to “China” and the “PRC” do not include Hong Kong, the Macau Special Administrative Region of the PRC and Taiwan; 中華人民共和國，但僅就本報告及提述地理區域而言，且除文義另有所指外，本報告中提述的「中國」並不包括中國香港、澳門特別行政區及台灣地區；</p>
<p>“Code Provision(s)” 「守則條文」</p>	<p>指</p>	<p>the principles and code provisions set out in the CG Code; 企業管治守則所載的原則及守則條文；</p>
<p>“Companies Ordinance” 「公司條例」</p>	<p>指</p>	<p>the Companies Ordinance (Chapter 622 of the Laws of Hong Kong), as amended, supplemented or otherwise modified from time to time; 香港法例第622章《公司條例》(經不時修訂、補充或以其他方式修改)；</p>
<p>“Company” or “our Company” 「本公司」</p>	<p>指</p>	<p>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); 江蘇瑞科生物技術股份有限公司，一家於中國註冊成立的股份有限公司，其H股於聯交所上市(股份代號：2179)；</p>

Definitions and Glossary of Technical Terms

釋義及技術詞彙

<p>“Core Product”</p> <p>「核心產品」</p>	<p>指</p>	<p>has the meaning ascribed to it in Chapter 18A of the Listing Rules; for the purpose of the report, our Core Product refers to REC603, a recombinant HPV 9-valent vaccine candidate;</p> <p>具有上市規則第18A章賦予該詞的涵義；就本報告而言，我們的核心產品指REC603（一款重組HPV九價候選疫苗）；</p>
<p>“CSRC”</p> <p>「中國證監會」</p>	<p>指</p>	<p>China Securities Regulatory Commission;</p> <p>中國證券監督管理委員會；</p>
<p>“Director(s)”</p> <p>「董事」</p>	<p>指</p>	<p>the director(s) of our Company;</p> <p>本公司董事；</p>
<p>“Domestic Share(s)”</p> <p>「內資股」</p>	<p>指</p>	<p>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;</p> <p>本公司股本中每股面值人民幣1.00元的普通股，由境內投資者以人民幣認購並繳足；</p>
<p>“Dr. LIU”</p> <p>「劉博士」</p>	<p>指</p>	<p>Dr. LIU Yong, the executive Director and general manager of our Group;</p> <p>本集團執行董事及總經理劉勇博士；</p>
<p>“FDA”</p> <p>「FDA」</p>	<p>指</p>	<p>the United States Food and Drug Administration;</p> <p>美國食品藥品監督管理局；</p>
<p>“Global Offering”</p> <p>「全球發售」</p>	<p>指</p>	<p>the global offering of 30,854,500 H Shares (subject to over-allotment option) as described in the Prospectus;</p> <p>招股章程所述全球發售30,854,500股H股（視乎超額配股權行使情況而定）；</p>
<p>“Group”, “our Group”, “we” or “us”</p> <p>「本集團」或「我們」</p>	<p>指</p>	<p>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);</p> <p>本公司及其所有附屬公司，或按文義所指，就本公司成為其現時附屬公司的控股公司之前的期間而言，該等附屬公司或其前身（視情況而定）所經營的業務；</p>
<p>“H Share(s)”</p> <p>「H股」</p>	<p>指</p>	<p>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;</p> <p>本公司股本中每股面值人民幣1.00元的境外上市外資股，於聯交所上市及以港元交易；</p>
<p>“H Share Registrar”</p> <p>「H股證券登記處」</p>	<p>指</p>	<p>Computershare Hong Kong Investor Services Limited;</p> <p>香港中央證券登記有限公司；</p>

Definitions and Glossary of Technical Terms

釋義及技術詞彙

<p>“HK\$” or “Hong Kong dollars” 「港元」</p>	指	<p>Hong Kong dollars, the lawful currency of Hong Kong; 香港法定貨幣港元；</p>
<p>“Hong Kong” 「香港」</p>	指	<p>the Hong Kong Special Administrative Region of the PRC; 中國香港特別行政區；</p>
<p>“IASB” 「國際會計準則理事會」</p>	指	<p>International Accounting Standards Board; 國際會計準則理事會；</p>
<p>“IFRS” 「國際財務報告準則」</p>	指	<p>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; 國際財務報告準則，該統稱包括國際會計準則理事會頒發的所有適用個別國際財務報告準則、國際會計準則及詮釋；</p>
<p>“Jiangsu MPA” 「江蘇省藥監局」</p>	指	<p>the Medical Products Administration of Jiangsu Province; 江蘇省藥品監督管理局；</p>
<p>“Latest Practicable Date” 「最後實際可行日期」</p>	指	<p>August 31, 2023, being the latest practicable date for the purpose of ascertaining certain information in the report prior to its publication; 2023年8月31日，即本報告付印前確定當中所載若干資料的最後實際可行日期；</p>
<p>“Listing” 「上市」</p>	指	<p>the listing of our H Shares on the Stock Exchange; H股於聯交所上市；</p>
<p>“Listing Date” 「上市日期」</p>	指	<p>March 31, 2022, on which dealings in our H Shares first commenced on the Main Board of the Stock Exchange; 2022年3月31日，即H股首次在聯交所主板開始買賣的日期；</p>
<p>“Listing Rules” 「上市規則」</p>	指	<p>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; 香港聯合交易所有限公司證券上市規則（經不時修訂、補充或以其他方式修改）；</p>
<p>“Main Board” 「主板」</p>	指	<p>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; 聯交所營運的證券交易所（不包括期權市場），其獨立於聯交所Growth Enterprise Market並與之並行營運；</p>

Definitions and Glossary of Technical Terms

釋義及技術詞彙

“Model Code” 「標準守則」	指	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; 上市規則附錄十所載的《上市發行人董事進行證券交易的標準守則》(經不時修訂、補充或以其他方式修改)；
“NMPA” 「國家藥監局」	指	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); 國家藥品監督管理局及其前身國家食品藥品監督管理總局；
“Prospectus” 「招股章程」	指	the prospectus issued by our Company on March 21, 2022 in relation to our Global Offering and Listing; 本公司就全球發售及上市所刊發日期為2022年3月21日的招股章程；
“Remuneration and Appraisal Committee” 「薪酬與考核委員會」	指	the remuneration and appraisal committee of our Company; 本公司薪酬與考核委員會；
“Reporting Period” 「報告期」	指	the six months ended June 30, 2023; 截至2023年6月30日止六個月期間；
“RMB” or “Renminbi” 「人民幣」	指	Renminbi, the lawful currency of the PRC; 中國法定貨幣人民幣；
“Share(s)” 「股份」	指	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; 本公司股本中每股面值人民幣1.00元的股份，包括內資股、未上市外資股及H股；
“Shareholders” 「股東」	指	holders of our Shares; 股份持有人；
“Stock Exchange” 「聯交所」	指	The Stock Exchange of Hong Kong Limited; 香港聯合交易所有限公司；
“subsidiary(ies)” 「附屬公司」	指	has the meaning ascribed thereto in section 15 of the Companies Ordinance; 具有公司條例第15條賦予該詞的涵義；
“Supervisor(s)” 「監事」	指	supervisor(s) of our Company; 本公司監事；

Definitions and Glossary of Technical Terms

釋義及技術詞彙

<p>“United States” or “U.S.”</p> <p>「美國」</p>	<p>指</p>	<p>the United States of America, its territories, its possessions and all areas subject to its jurisdiction;</p> <p>美利堅合眾國、其領土、屬地及受限於其司法管轄權的所有地區；</p>
<p>“Unlisted Foreign Share(s)”</p> <p>「未上市外資股」</p>	<p>指</p>	<p>ordinary share(s) issued by our Company with a nominal value of RMB1.00 each and are held by foreign investors and are not listed on any stock exchange;</p> <p>本公司發行的每股面值人民幣1.00元的普通股，並由境外投資者持有，且並無於任何證券交易所上市；</p>
<p>“U.S. dollars”, “US\$” or “USD”</p> <p>「美元」</p>	<p>指</p>	<p>United States dollars, the lawful currency of the United States;</p> <p>美國法定貨幣美元；</p>
<p>“Wuhan Recogen”</p> <p>「武漢瑞科吉」</p>	<p>指</p>	<p>Wuhan Recogen Biotechnology Co., Ltd. (武漢瑞科吉生物技術有限公司), a limited liability company established in the PRC on September 28, 2021.</p> <p>武漢瑞科吉生物技術有限公司，一家於2021年9月28日在中國成立的有限公司。</p>

GLOSSARY OF TECHNICAL TERMS

技術詞彙

<p>“adjuvant”</p> <p>「佐劑」</p>	<p>指</p>	<p>a substance that may be added to a vaccine to enhance the body’s immune response to an antigen;</p> <p>一種可被添加到疫苗中以增強人體對抗原的免疫應答的物質；</p>
<p>“adjuvant system”</p> <p>「佐劑系統」</p>	<p>指</p>	<p>formulations of classical adjuvants mixed with immunomodulators, specifically adapted to the antigen and the target population;</p> <p>專門針對抗原和目標人群的經典佐劑與免疫調節劑混合的製劑；</p>
<p>“AE”</p> <p>「不良事件」</p>	<p>指</p>	<p>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;</p> <p>患者或臨床試驗受試者於臨床試驗中接受一種藥物或其他藥劑製品後出現的不良醫療事件，但不一定與治療有因果關係；</p>
<p>“antigen”</p> <p>「抗原」</p>	<p>指</p>	<p>the substance that is capable of stimulating an immune response, specifically activating lymphocytes, which are the body’s infection-fighting white blood cells;</p> <p>能夠刺激免疫應答的物質，特別是激活淋巴細胞（人體抵抗感染的白細胞）；</p>

Definitions and Glossary of Technical Terms

釋義及技術詞彙

“AS01”		a liposome-based vaccine adjuvant system, which contains 3-O-desacyl-4'-monophosphoryl lipid A (MPL), as well as the saponin QS-21;
「AS01」	指	基於脂質體的佐劑系統，它含有3-O-去酰基-4'-單磷酰基脂質A(MPL)，以及皂基QS-21；
“AS03”		an adjuvant system composed of α -tocopherol, squalene and polysorbate 80 in an oil-in-water emulsion;
「AS03」	指	由 α -生育酚、角鯊烯和聚山梨醇酯80組成的水包油乳劑佐劑系統；
“AS04”		an adjuvant system composed of aluminum salt and monophosphoryl lipid A (MPL), a clinically utilized TLR4 agonist;
「AS04」	指	一種由鋁鹽組成的佐劑系統，同時也是一種臨床上使用的TLR4激動劑單磷酰脂A(MPL)；
“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;
「B細胞」	指	一種因B細胞外表面存在BCR而不同於T細胞等其他淋巴細胞的白細胞，亦稱B淋巴細胞；
“BLA”		biologics license application;
「BLA」	指	生物製品許可申請；
“CD4”		a transmembrane glycoprotein that is expressed as a single polypeptide chain on the MHC class II-restricted T-cells;
「CD4」	指	一種跨膜糖蛋白，在第二類MHC限制性T細胞上以單鏈多肽形式表達；
“CD4+T cells”		a type of important T lymphocyte that helps coordinate the immune response by stimulating other immune cells to fight infections;
「CD4+T細胞」	指	一種重要的T淋巴細胞，通過刺激其他免疫細胞對抗感染來幫助協調免疫應答；
“CD8+T cells”		a type of important T lymphocytes for immune defense against intracellular pathogens, including viruses and bacteria, and for tumour surveillance;
「CD8+T細胞」	指	一種針對細胞內病原體（包括病毒和細菌）進行免疫防禦以及負責腫瘤監測的重要的T淋巴細胞；
“CDC”		Centre for Disease Control and Prevention;
「疾控中心」	指	疾病預防控制中心；
“cervical cancer”		cancer that occurs in the cervix – the lower part of the uterus that connects to the vagina;
「宮頸癌」	指	發生在子宮頸中的癌症 — 子宮頸是連接陰道的子宮下部；

Definitions and Glossary of Technical Terms

釋義及技術詞彙

“CHO cell” 「CHO細胞」	指	Chinese Hamsters Ovary Cell, which is widely used in biopharmaceutical industry to produce recombinant proteins; 中國倉鼠卵巢細胞，廣泛用於生物製藥行業，用來生產重組蛋白質；
“CMO(s)” 「合約生產機構」	指	a company that serves other companies in the pharmaceutical industry on a contract basis to provide comprehensive services from drug development through drug manufacturing; 為製藥行業內其他公司從藥物開發到藥品生產製造提供全面服務的合約服務公司；
“COVID-19” 「新冠肺炎」	指	Coronavirus Disease 2019, an infectious disease caused by the most recently discovered coronavirus, first reported in December 2019; 2019年冠狀病毒疾病是由最近發現的冠狀病毒引起的傳染性疾病，於2019年12月首次報道出；
“DALYs” 「DALYs」	指	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; 傷殘調整生命年，為衡量整體疾病負擔的指標，表現為因健康欠佳、傷殘或提早死亡而損失的生命年；
“E.coli” 「大腸桿菌」	指	Escherichia coli expression system, an expression system used in vaccine R&D and manufacturing; 大腸桿菌表達系統，用於疫苗研發及製造的表達系統；
“emulsion” 「乳劑」	指	a mixture of two or more liquids that are normally immiscible (unmixable or unblendable) owing to liquid-liquid phase separation; 兩種或多種一般互不相溶（不可混合或不可交融的）的液體因液液分離而形成的混合物；
“epitope” 「表位」	指	part of an antigen that is recognized by the immune system, specifically by antibodies, B cells, or T cells; 被抗體、B細胞或T細胞等的免疫系統識別的抗原的一部分；
“EV71” 「EV71」	指	Enterovirus 71, most EV71 infections commonly result in hand-foot-mouth disease (HFMD); 腸道病毒71型，大多數腸道病毒71型感染通常是導致手足口病的誘因；
“GFA” 「總建築面積」	指	gross floor area; 總建築面積；
“GMP” 「GMP」	指	good manufacturing practices; 藥品生產質量管理規範；
“GMT” 「GMT」	指	geometric mean titers; 幾何平均滴度；

Definitions and Glossary of Technical Terms

釋義及技術詞彙

<p>“H. polymorpha”</p> <p>「漢遜酵母」</p>	<p>指</p>	<p>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;</p> <p>漢遜酵母，一種眾所周知的模式生物，能以甲醇為碳源及能源，廣泛用於研究細胞、代謝及遺傳問題，以及在疫苗行業中使用以表達重組蛋白；</p>
<p>“HFMD”</p> <p>「手足口病」</p>	<p>指</p>	<p>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;</p> <p>手足口病，嬰幼兒中一種常見傳染病，特徵為發熱，口腔出現潰瘍，手、足及臀部出現水泡及皮疹；</p>
<p>“HPV”</p> <p>「HPV」</p>	<p>指</p>	<p>human papillomavirus, persistent infection of high-risk types can cause cervical cancer;</p> <p>人乳頭瘤病毒，高風險類型的持續感染可能會導致宮頸癌；</p>
<p>“HPV 9-valent vaccine”</p> <p>「HPV九價疫苗」</p>	<p>指</p>	<p>a vaccine that can help protect individuals against the infections and diseases caused by nine types of HPV;</p> <p>一種可幫助保護個人免受由九種類型HPV引起的感染及疾病的疫苗；</p>
<p>“HPV bivalent vaccine”</p> <p>「HPV二價疫苗」</p>	<p>指</p>	<p>vaccines that can prevent infections of two HPV types;</p> <p>可預防兩種HPV類型感染的疫苗；</p>
<p>“HPV quadrivalent vaccine”</p> <p>「HPV四價疫苗」</p>	<p>指</p>	<p>vaccines that can prevent infections of four HPV types;</p> <p>可預防四種HPV類型感染的疫苗；</p>
<p>“immune response”</p> <p>「免疫應答」</p>	<p>指</p>	<p>the process by which the body is stimulated by antigens;</p> <p>抗原刺激機體的過程；</p>
<p>“immunogenicity”</p> <p>「免疫原性」</p>	<p>指</p>	<p>the ability of an antigen to provoke immune response;</p> <p>抗原引起免疫應答的能力；</p>
<p>“IND”</p> <p>「IND」</p>	<p>指</p>	<p>investigational new drug or investigational new drug application;</p> <p>臨床研究用新藥或臨床研究用新藥申請；</p>
<p>“influenza” or “flu”</p> <p>「流感」</p>	<p>指</p>	<p>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;</p> <p>由流感病毒引起的傳染性極強的呼吸道疾病，特徵是突發高燒、肌肉酸痛、頭痛、疲勞及乾咳，嚴重者可能入院，甚至死亡；</p>

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釋義及技術詞彙

“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;
「IPD」	指	集成產品開發，一種工作及最佳實踐的結構，可使人們更好地溝通及達到更好的指標，從而更有效地共同工作，並連接整個價值鏈（此為矩陣管理模式的標準）；
“MF59”		an adjuvant system that uses a derivative of shark liver oil called squalene;
「MF59」	指	一種使用鯊魚肝油衍生物角鯊烯的佐劑系統；
“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;
「mRNA」	指	信使核糖核酸，與基因的遺傳序列相對應的單鏈RNA分子，在合成蛋白質的過程中被核糖體讀取；
“neutralizing antibodies” or “NAb”		an antibody that is responsible for defending cells from pathogens, which are organisms that cause disease;
「中和抗體」或「NAb」	指	一種負責保護細胞免受病原體侵害的抗體（病原體即引起疾病的生物）；
“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;
「NTD」	指	N-末端結構域，蛋白質多肽鏈的一個區域，位於蛋白質的起始處，具有自穩定性，並且獨立於其他部分折疊；
“Omicron variant”		variant of lineage B.1.1.529 of SARS-Co-2, the virus that causes COVID-19;
「奧密克戎變種病毒」	指	可導致新冠肺炎的SARS-Co-2的譜系B.1.1.529的變種病毒；
“OPTI”		the management philosophy adopted by our Company, which referred to Opportunity, Prudence, Technology and Intellectual Property;
「OPTI」	指	本公司採納的管理理念，即機會、謹慎、技術及知識產權；
“pathogens”		a bacteria, virus, or other microorganism that can cause disease;
「病原體」	指	可導致疾病的細菌、病毒或其他微生物；
“QS-21”		a purified plant extract used as a vaccine adjuvant;
「QS-21」	指	一種用於疫苗佐劑的純化植物提取物；
“R&D”		research and development;
「研發」	指	研究及開發；

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釋義及技術詞彙

“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;
「RBD」	指	受體結合域是病毒的一個關鍵部分，位於其「棘突」蛋白質上，使其能夠與身體受體對接，進入細胞並導致感染；
“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;
「嚴重不良事件」	指	包含以下任何劑量的人體藥物試驗中的任何意外醫療事件的幾種情形：導致死亡；威脅生命；需要患者住院治療或導致現有住院治療延長；導致持續或嚴重殘疾和／或喪失工作能力；可能導致先天性異常／出生缺陷，或需要干預以防止永久性損傷或損害；
“SARS-CoV-2”		severe acute respiratory syndrome coronavirus 2, the strain of coronavirus that causes COVID-19;
「SARS-CoV-2」	指	嚴重急性呼吸系統綜合症冠狀病毒2，導致新冠肺炎的冠狀病毒菌株；
“shingles” 「帶狀疱疹」	指	a viral infection that causes a painful rash; 一種引起疼痛皮疹的病毒感染；
“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;
「T細胞」	指	源於胸腺並於外圍成熟的細胞，於其T細胞受體與MHC分子呈遞的抗原結合時在脾臟／淋巴結激活，且其將接收額外的共刺激信號以使其取得殺傷（主要針對CD8+T細胞）或輔助（主要針對CD4+T細胞）功能；
“TB”		tuberculosis, an infection caused by Mycobacterium tuberculosis that primarily affects the lungs;
「結核病」	指	結核病，由主要影響肺部的結核分支桿菌引起的感染；
“TLR4”		a receptor for lipopolysaccharide (LPS), which has a pivotal role in the regulation of immune responses to infection;
「TLR4」	指	脂多糖(LPS)的受體，在調節對感染的免疫應答中起著關鍵的作用；
“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;
「耐受性」	指	患者對藥物的明顯不良事件的耐受程度。特定藥物的耐受性可以在一般意義上進行討論，也可以作為臨床研究的一部分進行量化測量；

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釋義及技術詞彙

“varicella”		an acute infectious disease caused by the first infection of varicella zoster virus;
「水痘」	指	首次感染水痘 — 帶狀疱疹病毒引起的急性傳染病；
“VLPs”		virus-like particles, are molecules that closely resemble viruses;
「VLPs」	指	病毒樣顆粒，是與病毒非常相似的分子；
“WHO”		World Health Organization.
「世界衛生組織」	指	世界衛生組織。

Certain amounts and percentage figures included in this report have been subject to rounding adjustments. 本報告所載的若干金額及百分比數字已作約整。

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 report 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.

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