Grand Pharmaceutical Group Limited
遠大醫藥集團有限公司*
(Incorporated in Bermuda with limited liability)
(Stock Code: 00512)

2024 INTERIM RESULTS ANNOUNCEMENT

Financial Highlights

- For the six months ended 30 June 2024, the Group recorded revenue of approximately HK$6,047.24 million (for the six months ended 30 June 2023: HK$5,989.49 million), representing an increase of approximately 1.0% as compared to the corresponding period of last year. If disregarding the impact of exchange rate fluctuation between RMB and HK$, it increased by approximately 5.4% compared to the same period of 2023.

- For the six months ended 30 June 2024, the profit for the period attributable to owners of the Company amounted to approximately HK$1,557.95 million , representing an increase of approximately 51.4% compared to the corresponding period in 2023. If disregarding the impact of exchange rate fluctuation between RMB and HK$, it increased by approximately 58.0% compared to the same period of 2023. If disregarding the revenue from fair value change of investment in Telix amounted to approximately HK$476.63 million, the normalized profit for the period attributable to the owners of the Company[1] amounted to approximately HK$1,081.31 million, with an increment of approximately 35.1% as compared with the corresponding period of 2023. If disregarding the impact of exchange rate fluctuation between RMB and HK$, it increased by approximately 41.0% compared to the same period of 2023.

- For the six months ended 30 June 2024, the Group continued to invest in ongoing research projects and the introduction of innovative projects. The Group's investment in research and development work and projects, including the research and development expenses, capitalized research and development expenses, prepayments for new projects and other investments, was approximately HK$1,480.00 million.

- For the six months ended 30 June 2024, the Group's nuclear medicine anti-tumor diagnosis and treatment segment recorded revenue of approximately HK$207.24 million, representing an increase of approximately 107.6% compared to the corresponding period in 2023 (approximately HK$104.20 million), disregarding the impact of exchange rate fluctuation between RMB and HK$. Core products Yttrium-90 microsphere injections and liquid embolic agent Lava™ have entered a rapid growth phase.

Note:

1. The normalized profit for the period attributable to the owners of the Group excluded the impact from the fair value change of investment in Telix.

MANAGEMENT DISCUSSION AND ANALYSIS

GROUP POSITIONING

The Group is an international pharmaceutical company of technological innovation. Its core businesses cover three major areas, namely nuclear medicine anti-tumor diagnosis and treatment and cerebro-cardiovascular precision interventional diagnosis and treatment technology, pharmaceutical technology and biotechnology. Based on the pharmaceutical and biological industries, the Group focuses on the needs of patients, and take technological innovation as the driving force. In response to the unmet clinical needs, the Group will increase its investment in global innovative products and advanced technologies, enrich and improve its product pipelines, consolidate and strengthen its industrial chain layout, and fully leverage the Group's industrial strengths and R&D capabilities to provide more advanced and diverse treatment solutions to patients worldwide.

With unremitting efforts in recent years, the Group has laid a more solid foundation for development, consolidated its operation scale, gradually optimized its business structure, continued to improve its operation mode, accelerated its pace of transformation and upgrading, and made various achievements in innovative layout. The Group's profitability continues to improve and help facilitate R&D and innovation; its good ability in mergers and acquisitions and integration continues to consolidate the scale of development; the integration of raw materials and preparations improves the structure of the industrial chain; and the diversification of business and entities has effectively enhanced the comprehensive advantages.

"Maintain stable growth, strive in innovation and strategic planning", the Group will stick with the development concept of "comprehensive strengths, innovation leading and global expansion" and the strategy of "dual-wheel driving development of independent R&D, global expansion and dual-cycle operation", the Group has formed a new pattern of domestic and international cycles that synergize with each other, and is committed to becoming an international pharmaceutical company of technological innovation, delivering on its promises for doctors and patients, and making significant contribution to the society.

BUSINESS REVIEW AND PROSPECTS

During 2024 up to the date of this announcement, the Group had a total of 33 significant milestones, including 15 innovative products, 5 generic products, and 1 functional food; 6 raw material product certifications; 3 major acquisitions; and 3 major construction project. In addition, the Group has added 6 new commercialized products this year, including 1 new product in the respiratory segment, Budesonide Nasal Spray; 1 new product in the ENT segment, the Maixuekang series; and 4 new products in the cardiovascular emergency segment, namely Herbesser(合貝爽®及合心爽®) series, Anplag®, Limetone® eplerenone tablets(力美通®依普利酮片). These products will lay the foundation for the Group's subsequent performance growth. Meanwhile, the Group's nuclear medicine anti-tumor segment's Yttrium-90 microsphere injections and liquid embolic agent Lava™, the respiratory and critical and severe diseases segment's Enerzair® Breezhaler® and Atectura® Breezhaler®, and the cerebro-cardiovascular emergency segment's Nengqilang® Coenzyme Q10 Tablets have entered a rapid volume growth phase, successfully contributing to the update and iteration of the Group's product portfolio and becoming a new driving force for the Group's steady performance growth.

Innovative products

Nuclear medicine anti-tumor diagnosis and treatment:

– The innovative nuclear medicine product TLX250-CDx for the diagnosis of clear cell renal cell carcinoma ("**ccRCC**") has completed phase I clinical study in China and successfully entered confirmatory clinical study;

– Innovative nuclear medicine product for the treatment of gastroenteropancreatic neuroendocrine tumors ("**GEP-NETs**") ITM-11 has submitted an Investigational New Drug ("**IND**") application to the National Medical Products Administration of China ("**NMPA**") and has been approved to conduct phase III clinical study;

– The globally innovative temperature-sensitive embolic agent has officially entered the registration clinical research stage.

Respiratory and critical and severe disease:

– GSP 301 NS ("**Ryaltris®**") compound nasal spray, an innovative product for the treatment of allergic rhinitis, has submitted a commercialization application to the NMPA and has been accepted;

– Innovative medicine for treating respiratory diseases GPN00187 was approved to commence phase I clinical study;

– Innovative medicine for treating respiratory diseases GPN00204 submitted the IND to the NMPA and was approved to conduct phase I clinical study;

– APAD, a global innovative drug for the treatment of sepsis, has completed phase I clinical study conducted in China and achieved the clinical endpoint.

ENT:

– The innovative improved new drug CBT-001 for the treatment of pterygium has completed the first patient enrollment and administration in the phase III clinical study conducted in China;

– An innovative drug for slowing the progression of myopia in children GPN00884 was approved for phase I clinical study in China and completed the first patient enrollment and administration.

mRNA platform:

– ARC01, a therapeutic tumor vaccine for human papillomavirus type 16 ("**HPV-16**")-positive late-stage unresectable or recurrent/metastatic solid tumors, was approved to conduct a phase I clinical study in China.

Generic products

There were 5 products that have been approved for commercialization.

Functional foods:

There were 3 functional foods commercialized in China.

API products

There were 6 API products approved for commercialization by the NMPA.

Merger and acquisition

For the respiratory and critical and severe disease segment, Beijing Grand Jiuhe Pharmaceutical Co., Ltd.*(北京遠大九和藥業有限公司), a subsidiary of the Group, has completed the change of registration for the 100% equity of Nanchang Baiji Pharmaceutical Co., Ltd.(南昌百濟製藥有限公司) and Jiangxi Baian Baiyu Pharmaceutical Technology Co., Ltd.(江西百安百煜醫藥科技有限公司) (collectively referred to as "**Baiji Pharmaceutical**"), and has acquired its technologically advanced nasal spray platform. This acquisition is a significant layout for the Group's respiratory and critical and severe disease segment. Baiji Pharmaceutical's products will be combined with the Group's Ryaltris® compound nasal spray to form a product portfolio, comprehensively meeting the medication needs of patients with mild, moderate, and severe allergic rhinitis. At the same time, it will further improve the construction of the Group's inhalation formulation platform in the respiratory field.

For the ENT segment, Xi'an Beilin Pharmaceutical Co., Ltd. ("**Xi'an Beilin**"), a subsidiary of the Group, completed the 90% equity acquisition of Chongqing Duoputai Pharmaceutical Technology Co., Ltd. ("**Duoputai Technology**") and obtained the product rights to its core traditional Chinese medicine product Maixuekang series. Duoputai Technology has become a non-wholly owned subsidiary of the Group. This acquisition not only enriches the Group's portfolio of traditional Chinese medicine products in the ENT segment but also further consolidates the Group's overall market competitiveness in the field of traditional Chinese medicine.

For the cerebro-cardiovascular emergency segment, Grand Pharma (China) Co., Ltd. ("**Grand Pharma (China)**"), a subsidiary of the Group, has completed the 100% equity change registration of Tianjin Tanabe Seiyaku Co., Ltd. ("**Tianjin Tanabe**"), and Tianjin Tanabe has become a non-wholly owned subsidiary of the Group. On the one hand, it further consolidated the Group's leadership position in the cerebro-cardiovascular emergency market. On the other hand, it accelerated the Group's entry into the cerebro-cardiovascular chronic disease market, facilitating the rapid establishment of market advantages.

In addition, the Group has also made significant progress in the construction of its production bases.

Production bases:

Grand Pharmaceutical's Radiopharmaceutical R&D and Production Base(遠大醫藥放射性藥物研發及生產基地), located in Wenjiang District, Chengdu, Sichuan Province, China, has completed the topping out of the main structure, which will further consolidate the foundation of the Group's nuclear medicine industry, accelerate the implementation of the global innovative R&D pipeline, cultivate high-value blockbuster varieties, and lay a solid foundation for the Global high-quality development of the Group's nuclear medicine industry.

The Construction Project (Phase I) of Yongsheng Preparation Factory of Grand Pharmaceutical(遠大醫藥永晟製劑工廠建設項目(一期)), located in Yangxin County, Huangshi City, Hubei Province, China, has officially commenced, which will further expand the production capacity of the Group's pharmaceutical technology, provide production support for the subsequent implementation of the high-end preparation project, strengthen the industrial chain of the Group's high-end preparation manufacturing, and provide continuous momentum for the subsequent performance growth of the Group's pharmaceutical technology.

The second phase of the amino acid production base in Xiantao City, Hubei Province, China, has officially started construction. After the production base is completed, it will further expand the production capacity of a number of high-quality amino acid varieties of the Group and provide sustainable momentum for the Group's amino acid segment to grow profitably in the future.

BUSINESS INTRODUCTION

The Group has strong technological innovation strength, outstanding internationalization strength, solid industrial foundation, complete industrial chain and significant comprehensive advantages in the integration of raw materials and preparations. The Group has more than 90 products included in the National Essential Drug List (2018 version) and more than 200 products included in the National Reimbursement Drug List for Basic Medical Insurance, Work-Related Injury Insurance and Maternity Insurance (2023 version).

Nuclear Medicine Anti-tumor Diagnosis and Treatment as well as Cerebro-cardiovascular Precision Interventional Diagnosis and Treatment Technology

By fully capitalizing "accurate and stable business development capabilities at home and abroad, the introduction and digestion of international leading technologies, excellent marketing and sales capabilities", the Group is aiming at the frontier areas of technological innovation and focusing on the layout of the "nuclear medicine anti-tumor diagnosis and treatment" and "cerebro-cardiovascular precision interventional diagnosis and treatment" segments. It has become a leading enterprise in nuclear medicine anti-tumor diagnosis and treatment in China, and a comprehensive cerebro-cardiovascular precision interventional diagnosis and treatment technology platform with international cutting-edge technologies.

Nuclear Medicine Anti-tumor Diagnosis and Treatment Segment

In the nuclear medicine anti-tumor diagnosis and treatment segment, the Group has achieved a comprehensive layout in the fields of R&D, production, sales, regulatory qualifications and established a complete industrial chain. The Group has obtained a series of domestic licenses for the production and operation of radiopharmaceuticals, including the license for the production of radiopharmaceuticals, the license for the operation of radiopharmaceuticals and the license for the safety of radiation, with steady progress of commercialization in China. At the same time, the Group also participated in the formulation of the Technical Guidelines for Clinical Evaluation of Radioactive Therapeutic Drugs (《放射性體內治療藥物臨床評價技術指導原則》), the Opinions on Reforming and Improving the Management for the Assessment and Approval of Radiopharmaceuticals (Exposure Draft) (《關於改革完善放射性藥品審評審批管理的意見(徵求意見稿)》)and other regulatory documents to promote the healthy development of the nuclear medicine industry in China.

The nuclear medicine anti-tumor diagnosis and treatment segment is one of the most globalized segments of the Group. Currently, it has nearly 650 employees. The Group, together with Sirtex, cooperated with Telix Pharmaceutical Limited ("**Telix**") and ITM Isotope Technologies Munich SE ("**ITM**") to establish a world-class tumor intervention technology platform and a RDC technology platform. The Group adheres to the treatment concept of integrated oncology diagnosis and treatment. Currently, the Group has 12 innovative products in the pipeline at the R&D registration stage, covering five radionuclides including ^{68}Ga, ^{177}Lu, ^{131}I, ^{90}Y, ^{89}Zr as well as seven cancers including liver cancer, prostate cancer and brain cancer. In terms of product types, it covers two types of radionuclide drugs for diagnosis and therapy, providing patients with global leading anti-tumor solutions with multi-indication treatment options, multi-means and integrated diagnosis and treatment. At the same time, the Group and Shandong University jointly established Grand Pharma – Shandong University Radiopharmaceutical Research Institute(遠大醫藥–山東大學放射藥物研究院), and with the institute as the core, an early research and development platform for nuclear drugs has been established to carry out the independent R&D of RDC drugs. Currently, the Group has 12 products in the pipeline at the early R&D stage.

With the continuous expansion of the product pipeline, the registration and application of innovative products in China is also progressing smoothly. In 2022, Yttrium-90 microsphere injections have been commercialized successfully. At present, four RDC have been approved for clinical trials. At the same time, the Group has been advancing the construction of Class A qualification nuclide production platform in an orderly manner. In the future, the Group will continue to strengthen the R&D in and establishment of the nuclear medicine anti-tumor diagnosis and treatment segment, as well as enrich and improve the product pipeline and industrial layout, forming a nuclear medicine anti-tumor diagnosis and treatment product cluster with the core of Yttrium-90 microsphere injections, which continuously consolidates the Group's global leading position in the field of nuclear medicine anti-tumor diagnosis and treatment.

Core products

Yttrium-90 microsphere injections, the global innovative product:

The Group's global blockbuster innovative product, Yttrium-90 microsphere injections, is the only product in the world for selective internal radiation therapy (SIRT) for colorectal cancer liver metastases. It has been used by more than 150,000 people in over 50 countries and regions around the world. It is also recommended by the treatment guidelines issued by different international authoritative organizations such as Barcelona Clinic Liver Cancer Guidelines (BCLC), National Comprehensive Cancer Network (NCCN), European Society for Medical Oncology (ESMO), European Association for the Study of the Liver (EASL), National Institute for Health and Care Excellence (NICE), etc. and has been included in several authoritative clinical practice guidelines in China, including the "2022 CSCO Guidelines for Diagnosis and Treatment of Primary Liver Cancer" (《二零二二年CSCO原發性肝癌診療指南》), the "Guidelines for Diagnosis and Treatment of Primary Liver Cancer (2024 edition)" (《原發性肝癌診療指南(2024版)》), "Chinese Guidelines for Diagnosis and Comprehensive Treatment of Colorectal Cancer Liver Metastases (2023 edition)" (《中國結直腸癌肝轉移診斷和綜合治療指南(2023版)》), "Clinical Practice Guidelines for Liver Cancer and Liver Transplantation in China (2021 edition)" (《中國肝癌肝移植臨床實踐指南(2021版)》), etc.

In January 2022, the Group received the approval from the NMPA for commercialization of Yttrium-90 microsphere injections, for the treatment of patients with unresectable colorectal liver metastases who have failed standard of care. The product provided a new and effective treatment modality for patients with liver malignancies in China, offering the opportunity for translational therapy and further surgical resection to achieve clinical cure, bridging the gap in the local treatment of liver malignancies, improving the long-term treatment outcome of the Chinese patient population with liver malignancies, and marking the arrival of a new international precision interventional treatment option in the field of liver malignancies in China.

In May 2022, Yttrium-90 microsphere injections was officially commercialized in China. The treatment of liver malignancies in China has entered a new "Y-90 era". Since the official commercialization of YiGanTai®, nearly 70 hospitals have completed the nuclide transfer procedures, its official surgeries have been carried out in over 40 hospitals in 22 provinces and cities in China, while 7 surgery, treatment and training centers have been established. The follow-up results showed that the overall response of patients who take YiGanTai® surgery was satisfactory, and most patients achieved favorable clinical therapeutic effect. As at the date of this announcement, more than 10 patients have successfully achieved liver cancer tumor downstaging transform and took liver cancer resection, achieving clinical cure. Among patients who could be followed up for 3 months or more, the objective response rate of YiGanTai® for liver cancer reached 62.6%, and more than half of the patients had achieved tumor size remission. Among them, the symptoms of more than 40 patients were completely relieved with no resection required, and the disease control rate of the follow-up patients was approximately 85%, showing a remarkable therapeutic effect.

In order to speed up the implementation and popularization of YiGanTai® microsphere injections precise interventional therapy in China, the Group, based on the surgeon supervision and training system approved by China NMPA and U.S. FDA, concentrated global resources to provide comprehensive training to surgeons in China on patient screening knowledge, surgical operation skills, and prognosis assessment methods, helping doctors to master and accumulate clinical experience to ensure a wider, safe and effective applications of the product, and assisted domestic doctors in conducting multiple personalized practical trainings by well-known overseas clinical experts. At present, the Group has trained more than 1,000 doctors in 70 hospitals on the surgery theory or skills of YiGanTai®, more than 140 doctors have obtained the surgeon registration for YiGanTai®. Among which, approximately 50 doctors have obtained the operation qualification of independent surgery through strict one-to-one training by international and domestic renowned experts, and 65 doctors have been qualified as assistants in surgical operation. Another 9 experts have obtained the qualification of training instructor, which will further accelerate the clinical popularization of YiGanTai® radioactive interventional operation.

Since its commercialization, Yttrium-90 microsphere injection has been included in 40 inclusive insurances such as Shanghai Hu Hui Bao (上海滬惠保), Nanjing Ning Hui Bao (南京寧惠保), Jiangsu Yi Hui Bao (江蘇醫惠保) and Beijing Pu Hui Jian Kang Bao (北京普惠健康保) and 2 special medical insurance, which covers 20 provinces and 27 cities with a significant increase in the accessibility of such product to patients with liver cancer.

Lava™, a global innovative liquid embolic agent

Lava™ is the first innovative liquid embolic agent approved for the treatment of peripheral vascular arterial hemorrhage in the United States. Its radiopacity makes the product less prone to artifacts during the imaging process, thus giving a better imaging effect. Lava™ can be easily prepared in 3 minutes, while it takes about 20 minutes to prepare similar products, saving doctors' preparation time in emergency situations and increasing the probability of patient survival; the solid embolization upon conversion offers two viscosities which can be used flexibly for patients with different conditions. Lava™ can create synergies with radioisotopes brachytherapy and interventional therapies. Currently, the product was approved for commercialization in the United States in April 2023 and its formal commercialization commenced in October of the same year.

Innovative R&D pipeline

The products of the nuclear medicine anti-tumor diagnosis and treatment segment are mainly divided into two categories: interventional therapy and RDC.

Interventional therapy:

GPN00289, a global innovative temperature sensitive embolic agent:

GPN00289 is an NMPA innovative medical device approved temperature sensitive embolic material for the treatment of vascular– rich benign and malignant tumors. At room temperature, the gel has good flowability and is delivered to the vasculature of the diseased tissue through a microcatheter. The gel is then solidified in situ at body temperature from the peripheral vessels to the main donor vessel to achieve embolization of the diseased tissue. It is suitable for the embolization of various vascular-rich solid organ tumors, especially benign and moderate malignant tumors in the liver. The product has entered the registered clinical study stage in July 2024.

Kona™, a global innovative liquid embolic agent

The product, for the treatment of preoperative embolization of cerebral arteriovenous malformations, is developed with a transient radiopacity that diminishes over time, which can present clear post-operative organ visualization. In addition, with its drug loading potential, Kona™ can load other chemical or radiopharmaceuticals to develop new drug-device combination products, so as to provide more diversified treatment options for the treatment of other tumors or vascular diseases. Currently, an application for Premarket Approval (PMA) has been submitted to the FDA for Kona™.

AuroLase®, a global innovative solid tumor ablation therapy

AuroLase® is a global innovative therapeutic technology for prostate cancer tissue ablation that uses a new type of optically tunable nanoparticle, delivered intravenously and enriched in the tumor, to selectively absorb laser energy and convert light into heat, thereby precisely destroying the tumor and the blood vessels supplying it without severely damaging the surrounding healthy tissue. AuroLase® therapy can maximize treatment outcomes while minimizing the side effects associated with surgery, radiation and alternative focal therapies compared to surgery, radiation or traditional alternative focal therapies. Currently, an application for PMA has been submitted to the FDA for the product.

RDC drugs:

There are currently 9 product candidates under research and a number of products have made important progress during the period.

TLX591/TLX591CDx, global innovative products for prostate cancer diagnosis and treatment:

TLX591 is a therapeutic RDC drug targeting prostate-specific membrane antigen (PSMA), and its overseas early clinical studies have shown positive treatment outcomes, with a median imaging progression-free survival (rPFS) of 8.8 months and a good safety profile, and the product has completed the first patient enrollment in the overseas Phase III international multi-center clinical study in November 2023. TLX591-CDx is diagnostic RDC drugs targeting PSMA, which could form an integrated radiotherapy portfolio with TLX591 for prostate cancer. TLX591-CDx was approved for commercialization in Australia in November 2021 and in the United States in December of the same year, in Canada in October 2022 and was granted a special license in Brazil for pre-approval sales. At the same time, an application for commercialization of the product in the United Kingdom and the European Union was also underway. In August 2023, the first patient enrollment for the phase III clinical study of TLX591-CDx conducted in China was completed.

TLX250/TLX250CDx, global innovative products for the treatment of clear cell renal cell carcinoma:

TLX250 and TLX250-CDx form an integrated radiotherapy portfolio for clear cell renal cell carcinoma (ccRCC). TLX250-CDx was granted a breakthrough therapy by the FDA in July 2020, and the overseas phase III clinical study successfully met clinical endpoints in November 2022. According to the study results, for the patients with renal masses suggested by computerized tomography (CT) or magnetic resonance imaging (MRI) but unable to determine whether it is ccRCC, the sensitivity and specificity of positron emission tomography (PET) imaging with TLX250-CDx in the diagnosis of ccRCC reached 86% and 87% respectively, which far exceeded the preset threshold required by the FDA (both sensitivity and specificity higher than or equal to 70%). Its positive predictive value has reached 93%. For early ccRCC in stage T1a, which is currently difficult to diagnose (the tumor is confined to the kidney with the largest tumor diameter smaller than or equal to 4 cm), the sensitivity and specificity of TLX250– CDx diagnosis reached 85% and 89% respectively. These breakthrough clinical results demonstrate that TLX250-CDx is expected to provide a highly accurate and non-invasive diagnostic solution for ccRCC, and has the potential to become a new clinical diagnostic standard for ccRCC. Currently, the application for commercialization of TLX250-CDx has been submitted to the FDA. Moreover, clinical studies of TLX250-CDx on a number of extended indications such as CAIX-positive solid cancer, bladder and Urothelial carcinoma are progressing worldwide. In September 2022, TLX250-CDx was approved by the NMPA to conduct a phase I clinical trial and a confirmatory clinical trial in China. Its phase I clinical study was completed by now and it is currently in the stage of confirmatory clinical trial. TLX250 is undergoing a phase II clinical study overseas.

ITM-11/TOCscan®, a global innovative product for the treatment of gastroenteropancreatic neuroendocrine tumors ("**GEP-NETs**"):

ITM-11 and TOCscan® form an integrated radiotherapy portfolio for GEP-NETs. ITM-11 has received an orphan drug status from FDA and European Medicines Agency ("**EMA**") and is in phase III clinical studies overseas. For the registration in China, the product was approved by the NMPA to commence the phase I clinical study in May 2023, and was approved by the NMPA to join the international multi-center phase III clinical study in March 2024. TOCscan® has been approved for commercialization in Germany, Austria and France in 2018.

TLX101, a global innovative product for glioblastoma treatment:

TLX101 is a RDC drug for the treatment of glioblastoma multiforme. It can pass through the blood-brain barrier entering the brain freely, and targets the overexpressed L-type amino acid transporter 1 (LAT– 1) in glioblastoma to precisely irradiate cancer cells, and promote their apoptosis to achieve therapeutic effect. The product has been granted orphan drug designation by the FDA and is currently in phase I/II clinical trials in Australia. In April 2023, the phase I clinical study of TLX101 to be conducted in China was approved by the NMPA.

ITM-41, a global innovative product for the treatment of bone metastasis in malignant tumors:

ITM-41 is a therapeutic RDC drug that targets bone metastasis in malignant tumors by conjugating no-carrier-added 177 Lu with zoledronic acid. The product can precisely target hydroxyapatite at the metastasis site, inhibiting bone metastasis from malignant tumors while minimizing radiation to normal tissues, greatly improving patient survival and potentially further reducing skeletal related events in patients with severe bone metastases. The product is currently in the pre-clinical research stage.

Cerebro-cardiovascular Precision Interventional Diagnosis and Treatment Segment

The Group adheres to the treatment concept of "interventional without implantation" and conducts comprehensive layout in three directions, namely channel management, structural heart disease, electrophysiology and heart failure, to build a high-end medical device product cluster. At present, the segment has reserved 14 products, of which 8 products in channel management have been approved for commercialization in China, NOVASIGHT Hybrid has been approved for commercialization in China by the NMPA in May 2023, and HeartLight X3 laser ablation platform has been submitted for commercial registration in China, while other products are also being actively promoted for clinical registration in China in order to achieve the stage-by-stage commercialization for innovative products in the coming years, driving the business in this segment to achieve steady growth.

The Group has completed the comprehensive construction of the "active + passive" innovative device platform in this segment. Among them, the Active Equipment R&D and Production Base in Optics Valley, Wuhan and the Passive Equipment R&D and Production Base in Changzhou have been put into use. The Shanghai Device R&D Center, which focuses on the field of structural heart disease, was officially inaugurated. At present, the Group has carried out technology cooperation with clinical centers or R&D platforms in the Unites States, Canada, Germany, Italy and Switzerland, and gradually started a new process of globalized R&D. The segment has over 200 employees and over 50 R&D team members, with nearly 60% of them holding master's degrees and doctoral degrees. With a comprehensive background in medicine, pharmacy, materials, machinery, electronics, etc., it helps to achieve stable and long– term development in R&D and innovation. The Group is committed to developing this segment into a leading "cerebro-cardiovascular precision interventional therapy platform" in China and worldwide.

Cerebro-cardiovascular precision intervention diagnosis and treatment products

The Group's two drug-coating balloons for sale in China, namely RESTORE DEB® and APERTO® OTW adopt the unique patented SAFEPAX technology. Both drug coating products are stable with small decay rate, which have been recognized by clinical doctors and patients with good market reputation since its commercialization. Novasight Hybrid System ("**Novasight**"), a global innovative intravascular dual-mode imaging device for coronary artery imaging, can achieve ultrasound and optical imaging at the same time, which can simultaneously meet the doctor's requirements for resolution and penetration, simplify the doctor's operation and improve the accuracy of imaging, thereby providing a more accurate vascular imaging solution for patients who need percutaneous coronary intervention ("**PCI**") treatment and satisfying personalized clinical needs. On the front of neurointervention, the Group's self-developed and self– produced innovative global neurointerventional products, including the OTW (Over The Wire) intracranial balloon dilatation catheter Cai Yu®(彩鬻®), the acute ischemic stroke treatment products, occlusion balloon catheter Ti Hu®(鵜鶘®), the distal access catheter Pilu®(琵鷺®) and the microcatheter Sheti®(蛇鵜®), both for building access to neurovascular and peripheral vascular system intervention surgeries, were approved for commercialization in China.

RESTORE DEB®, a coronary drug-coating balloon:

RESTORE DEB® is the first drug-coating balloon with the dual indications of original coronary artery disease mutation and stent restenosis in China. Its clinical research results were published in the important journal "JACC (Journal of the American College of Cardiology) Cardiovascular Interventions" in the field of cardiovascular disease, and its clinical status was also affirmed in the guidelines and expert consensus such as the Guidelines for Treatment of Percutaneous Coronary Intervention(中國經皮冠狀動脈介入治療指南)and the Chinese Expert Consensus on Clinical Application of Drug Coated Balloon(藥物塗層球囊臨床應用中國專家共識).

APERTO® OTW, a drug coated balloon for dialysis access:

APERTO® OTW is the first drug-coating balloon for the indication of arteriovenous fistula stenosis in dialysis patients. This product has the dual characteristics of high pressure resistance and drug coating. Compared with ordinary high pressure balloon, APERTO® OTW has a significant advantage in the passing rate of target lesions for six months after surgery, which will greatly contribute to the extension of the life time of fistula and the improvement of the quality of life of dialysis patients. Its clinical research results are published in American Journal of Kidney Diseases, an important journal in the field of kidney disease treatment.

Novasight, an intravascular dual mode imaging system:

Novasight combines two imaging technologies, namely intravascular ultrasound ("**IVUS**") and optical coherence tomography ("**OCT**") and can simultaneously show the ultrasound and optical image with the same direction, axis and phase, which, on one hand, better provides doctors with histological and morphological information on intravascular plaque and vascular wall, facilitating doctors to provide patients with more accurate treatment options. On the other hand, it also reduces the diagnosis and treatment procedures for patients and reduces their medical burden. In addition, the product is the first intravascular ultrasound and optical dual mode imaging system approved by the FDA of the United States. It has been commercialized both in Canada and Japan with a promising prospect in the field of coronary artery imaging and intracavitary interventional surgery.

Innovative and R&D pipeline

Access management direction:

LEGFLOW® OTW, a global innovative drug-coated balloon:

LEGFLOW® OTW is a drug-coated balloon for the treatment of peripheral arterial stenosis by adopting SAFEPAX patented technology. The product has completed full patient enrollment for registered clinical study.

LONG, a global innovative neurological stent retriever:

LONG is a stent retriever product against ischemic stroke. With reference of mature interventional technology and stent of coronary and peripheral, neurological stent retriever can extend an ischemic stroke patient's treatment window from 6 hours to 24 hours of drug treatment, becoming a new clinical method for the treatment of cerebral stroke. At present, the product has been submitted to the NMPA and accepted for commercial registration.

aXess, a global innovative endogenous tissue repair product:

aXess is a global innovative endogenous tissue repair product for end-stage renal disease (ESRD) patients with arteriovenous graft (AVGs) for hemodialysis treatment. The product is expected to provide a safer and more effective blood access for dialysis patients by providing a basic structural framework for autologous tissue repair of patients, accelerating the establishment of dialysis access, and reducing the incidence of thrombosis and related complications. aXess can further synergize with APERTO® OTW in the field of hemodialysis. The product is currently in preclinical development stage.

Structural heart disease direction:

Saturn, a global innovative mitral valve replacement system:

Saturn is a global innovative medical device for mitral valve replacement. The product is implanted in an interventional manner via a room septum to minimize surgical trauma and shorten post-operative recovery time, and innovatively combines annular reconstruction technology with valve replacement technology to enhance device adaptability and suitability for all common mitral valve structures. The product completed the first patient enrollment for the initial human trial in the United States in June 2024. Meanwhile, the registration of the product in China is also under active progress.

Electrophysiology and heart failure direction:

HeartLight X3, a global innovative laser ablation platform:

HeartLight X3 is a global innovative laser ablation product for the treatment of atrial fibrillation ("**AF**") approved by the FDA for commercialization in May 2020, and is the only product in the world that can achieve circumferential ablation of AF through laser. HeartLight X3 adopts direct tissue visualization, adjustable laser energy and compliant balloon technology to achieve precise and continuous energy delivery, taking into account the adjustable energy point-to-point precision ablation characteristics of traditional radiofrequency catheter ablation and the simplicity of cryoablation with short operation time and significantly reduced dependence on the operator, making it the latest generation of AF ablation technology platform. In February 2023, the first chartered-access laser ablation operation for atrial fibrillation in China was successfully completed with the product in Rujin-Hainan Hospital, introducing a new option with world-class precision to the field of atrial fibrillation treatment in China. The HeartLight X3 laser ablation platform has submitted an application for commercialization registration in China.

CoRISMA, a global innovative ventricular assisted device:

CoRISMA is a fully implanted transcatheter ventricular assisted medical device for the treatment of class III and end-stage heart failure. By adopting the world's most advanced energy transmission technology for wireless power supply, it provides a minimally invasive, safe, power-line infection-free and complication-free treatment for patients with end-stage heart failure through minimally invasive surgery. Currently, the Group is working with an innovative medical device company incubated by Yale University on product development.

PHARMACEUTICAL TECHNOLOGY

With years of experience in the respiratory and critical and severe disease, ENT and cerebro-cardiovascular emergency fields, the Group currently has a number of products with high entry barrier and exclusive products with leading market shares, a strong brand name and a solid market position, and also reserves a number of innovative products.

Through an innovation model combining global technology cooperation and independent R&D, the Group has established the International R&D Center in Optics Valley, Wuhan, the Glycomics R&D Center in Australia and the mRNA R&D Center in Aoluo, Nanjing in the field of pharmaceutical technology. These R&D centers and technology platforms will continue to empower and provide continuous technological support for the Group's R&D and innovation in the field of pharmaceutical technology.

Respiratory and Critical and Severe Disease Segment

The Group's products on sale in the respiratory and critical and severe disease segment covers a wide range of indications such as rhinitis, bronchitis, pneumonia, asthma and chronic obstructive pulmonary disease, etc. The core products, Qie Nuo (Eucalyptol, Limonene and Pinene Enteric Soft Capsules), Enerzair® Breezhaler® and Atectura® Breezhaler® are exclusive products nationwide, which are in the leading position in their respective segments.

The innovative strategic plan in this field focuses on the unmet significant clinical needs, with a number of products under research, covering allergic rhinitis, sepsis and Acute Respiratory Distress Syndrome ("**ARDS**") etc. In the future, the Group will continue to adopt the R&D concept of independent R&D and global expansion to create a full-cycle management product cluster for chronic airway diseases and a pipeline of products for critical and severe diseases, so as to continuously strengthen the Group's industry position in this field.

Respiratory products

The main products include Qie Nuo®, Enerzair® Breezhaler® and Atectura® Breezhaler®, Budesonide Nasal Spray etc.

Qie Nuo®:

It is a soluble and phlegm-free drug for viscosity, and is suitable for acute and chronic rhinosinusitis as well as respiratory diseases such as acute and chronic bronchitis, pneumonia, bronchial dilation, pulmonary abscess, chronic obstructive pulmonary disease, bacterial infection in the lungs, tuberculosis, and silica lungs. It can also be used for bronchoscopic angiography to facilitate the discharge of contrast medium. It is an exclusive product in China independently developed by the Group with two separate types of drugs for adult and children's use and was included in China's National Reimbursement Drug List in 2017 and China's National Essential Drug List in 2018 respectively, and was listed in the Top Brands of the Health Industry in 2023 (二零二三年健康產業品牌銳榜), Top Brands of Family Medicine in China 2022-2023 (2022-2023年中國家庭常備藥上榜品牌) and Potential Brands in China's Pharmaceutical Retail Market 2023-2024 (2023-2024年度中國藥品零售市場潛力品牌). Currently, there are dozens of guidelines and expert consensus recommending the use of viscosity dissolving promotors for clinical use. Among them, more than 10 guidelines and expert consensus explicitly recommend eucalyptol, limonene and pinene enteric soft capsules or its active ingredients for clinical treatment, such as the Expert Consensus on the Diagnosis and Treatment of Adult Bronchiectasis in China (2021) (《中國成人支氣管擴張症診斷與治療專家共識(2021)》), Guidelines for the Diagnosis and Treatment of Secretory Otitis Media in Children (2021) (《兒童分泌性中耳炎診斷和治療指南(2021)》), Diagnosis and Treatment Guidelines for Cough (2021) (《咳嗽的診斷與治療指南(2021)》), the Guidelines for Rational Use of Drugs for Chronic COPD in Primary Care (2020) (《慢性阻塞性肺疾病基層合理用藥指南(2020)》), Chinese Guidelines for Perioperative Airway Management in Thoracic Surgery (2020 Edition) (《中國胸外科圍手術期氣道管理指南(2020版)》), Diagnosis and Treatment of Primary Fibromotor Dyskinesia: Chinese Expert Consensus (《原發性纖毛運動障礙診斷與治療中國專家共識》), Expert Consensus on Classification and Diagnosis of Rhinitis and Nasal Medication Regimen (《鼻炎分類和診斷及鼻腔用藥方案的專家共識》) and Expert Consensus on Childhood Recurrent Respiratory Infections (《兒童反復呼吸道感染專家共識》), etc. Its clinical status is prominent, and the level of recognition among doctors and patients is high, continuing to lead the market of oral cough relieving and phlegm relieving drugs.

Enerzair® Breezhaler® (indacaterol acetate, glycopyrronium bromide and mometasone furoate powder for inhalation II) and Atectura® Breezhaler® (indacaterol acetate and mometasone furoate powder for inhalation II, III):

Enerzair® Breezhaler® is the first triple combination inhalation preparation for asthma indications approved in China for the maintenance treatment of asthma in adults not adequately controlled with the maintenance combination treatment of long-acting beta2 adrenergic agonist (LABA) and inhaled corticosteroid (ICS). The product has clear efficacy, is convenient to use, and has achieved breakthroughs in three aspects: (1) using an optimized drug combination of ICS, LABA and long-acting muscarinic receptor antagonist (LAMA) (i.e. mometasone furoate/indacaterol acetate/glycopyrronium bromide), the three effective ingredients can provide synergy benefit, and compared with the conventional high dose ICS-LABA and high dose ICS-LABA combined with LAMA opened triple combination, Enerzair® Breezhaler® can effectively improve the clinical symptoms and lung function of patients with moderate to severe asthma, and significantly reduce the risk of acute attacks; (2) dosing once a day, which significantly facilitates the patient and is expected to improve the compliance; (3) using the advanced Breezhaler® inhalation device, which is easy to operate, and provides patients with triple confirmation of dosing as audible, tasteable, and visible, enhancing patients' confidence that the complete dose has been taken. The ARGON phase III clinical study of the product shows that, compared with high dose Salmeterol-Fluticasone powder for inhalation combined with Tiotropium Bromide Spray opened triple combination, Enerzair® Breezhaler® significantly reduce the annualized rate of moderate exacerbations (based on 24 weeks data) by 43%. Atectura® Breezhaler® is an innovative combination of ICS mometasone furoate and LABA indacaterol acetate for the maintenance treatment of adult and 12 years old above adolescent patients with asthma. Atectura® Breezhaler® also has the characteristics including "visible and controllable, precise inhalation, once a day" etc. It can significantly improve the lung function of patients and reduce the risk of acute attacks, and is a new choice for optimal treatment of asthma patients. The phase III clinical study of the product shows that, compared with the conventional high dose Salmeterol-Fluticasone powder for inhalation, Atectura® Breezhaler® can significantly improve the risk of acute attack in patients, and the risk of severe, moderately severe and all acute attack categories is reduced by approximately 26%, 22% and 19% respectively. Both products were officially included in the category-B medicines management scope in China's National Reimbursement Drug List for Basic Medical Insurance, Work-Related Injury Insurance and Maternity Insurance (2023 version) (《國家基本醫療保險、工傷保險和生育保險藥品目錄(2023年版)》), and provide new treatment method for people receiving long-term asthma treatment.

Budesonide Nasal Spray:

It is a nasal corticosteroid medication with potent local anti-inflammatory and anti-allergic effects, which can directly act on the nasal mucosa to relieve rhinitis symptoms. It is used for the treatment of seasonal and perennial allergic rhinitis, perennial non-allergic rhinitis; it can also be used to prevent the recurrence of nasal polyps after nasal polyp removal and for symptomatic treatment of nasal polyps. As a first-line medication for allergic rhinitis, it has been included in multiple clinical guidelines and expert consensus documents such as the product has been included in clinical guidelines such as Guidelines for the Diagnosis and Treatment of Allergic Rhinitis in China (Revised Edition 2022) (《中國變應性鼻炎診斷和治療指南(2022年，修訂版)》), the Expert Consensus on Intranasal Corticosteroids for the Treatment of Allergic Rhinitis (《鼻用糖皮質激素治療變應性鼻炎專家共識》), the Chinese Guidelines for the Diagnosis and Treatment of Chronic Rhinosinusitis (《中國慢性鼻竇炎診斷與治療指南》) and the Expert Consensus on the Classification and Diagnosis of Rhinitis and Intranasal Medication Regimens (《鼻炎分類和診斷及鼻腔用藥方案的專家共識》). This product is the first generic in the country and is expected to change the competitive landscape dominated by foreign enterprises in the market of products with the same generic name.

Innovative R&D pipeline

Based on unmet clinical needs, the Group has reserved a number of global innovative drugs for the indications of seasonal allergic rhinitis, sepsis and ARDS.

Ryaltris®, a new compound nasal spray for the treatment of seasonal allergic rhinitis:

Ryaltris® is a new glucocorticoid and antihistamine compound nasal spray. Currently, the product has been approved for commercialization in the United States, Australia, South Korea, Russia, the United Kingdom, the European Union as well as other countries and regions. In terms of registration in China, it was approved to conduct a phase III clinical trial for the treatment of allergic rhinitis and rhinoconjunctivitis symptoms in patients aged 12 and above in October 2021, and has successfully met the clinical endpoint in September 2023. According to clinical results, the efficacy of Ryaltris® are better than the monomer originator preparations Patanase® NS and Nesuna® NS. Meanwhile, the safety, tolerability and pharmacokinetic features of Ryaltris® have also met the preset clinical endpoints. The NDA for the product was accepted by the NMPA in February 2024.

STC3141, a global innovative drug for the treatment of severe diseases:

STC3141 is a small molecule compound with a novel mechanism of action independently developed by the Group, which can be used to reverse organ damage caused by excessive immune responses by neutralizing extracellular free histones and neutrophil traps and is applicable to multiple severe disease indications. The product has a novel mechanism and the results of related preclinical research have been published in "Nature Communications" and "Critical Care", both top academic journal with far-reaching academic influence, in February 2020 and November 2023, respectively. At present, the product has been granted 7 clinical approvals in four indications of sepsis, ARDS, COVID-19, and ARDS caused by COVID-19 in five countries around three continents including China, Australia, Belgium, United Kingdom and Poland. Three patient-specific clinical studies were completed and have successfully met the clinical endpoints. It had been approved to conduct phase Ib clinical studies for the treatment of sepsis in Australia and Belgium in April 2020 and January 2022, respectively, and have successfully met the clinical endpoints in June 2023; it was approved by the NMPA to conduct a phase Ib clinical study for ARDS patients in China in early March 2021, which was completed in October 2022 and has successfully met the clinical endpoints; and it was approved to conduct phase IIa clinical studies for the treatment of severe COVID-19 pneumonia in Belgium, Poland and the United Kingdom in April, September and October 2021, respectively, which were completed in July 2022 and have successfully met the clinical endpoints. All three clinical studies demonstrated good safety profile and potential for clinical benefit in the treatment of severe diseases. Currently, the product was approved to conduct a phase II clinical study against sepsis in China in July 2023 with the first patient being enrolled in November of the same year.

APAD, a global innovative drug for the treatment of sepsis:

APAD is a small molecule compound with a novel mechanism of action independently developed by the Group, which can antagonize a variety of pathogen-related molecules. The preclinical trial data showed that it can play a therapeutic role in sepsis caused by both bacterial and viral infections, and it is complementary to STC3141's mechanism of antagonizing the body's excessive immune response to treat sepsis, which can form a good product portfolio in the treatment of severe diseases such as sepsis. The product was approved to conduct phase I clinical study in China in March 2023. The phase I clinical study has now been completed and successfully met the clinical endpoints. According to the clinical study results, the product demonstrated good safety and tolerability, and its pharmacokinetic characteristics in humans were preliminarily understood.

ENT segment

The Group ranks among the top in the industry in terms of the number of product pipelines on sale in the ENT segment, and its treatment areas include diseases in multiple fields such as ophthalmology, otolaryngology, and stomatology, covering chemical preparations, Chinese drug preparations and health products, including prescription drugs, OTC drugs, medical devices, consumer goods and other major categories. With full coverage inside and outside of the hospital, we created a "ENT ecosystem" by integrating "prevention + treatment + health care". In terms of innovation and R&D, the Group has reserved a few world-wide innovative products for the treatment of "myopia", "dry eye", "pterygium" and "anti-inflammatory and analgesic after ophthalmology surgery". In the future, the segment will adhere to the development strategy of combining Chinese and Western medicine as well as utilizing both medicine and medical devices in treatments, so as to continuously strengthen the influence of the industry, and achieve new breakthroughs in the business field.

ENT products

The ENT core products of the Group include He Xue Ming Mu tablets, Jinsang Series (Jinsang Kaiyin Tablet/Capsule/Pill/Granules, Jinsang Qingyin Tablet/Capsule/Pill/Granules, Jinsang Liyan Tablet/Capsule/Pill/Granules, Jinsang Sanjie Tablet/Capsule/Pill/Granules), Maixuekang (Maixuekang capsules and Maixuekang enteric-coated tablets), Rui Zhu (polyvinyl alcohol eye drop) and Nuo Tong (Xylometazoline Hydrochloride) etc.

He Xue Ming Mu tablet:

which is produced by three classical formulae, namely the Siwutang (四物湯), Erzhiwan (二至丸) and Shengpuhuangtang (生蒲黃湯), has the functions of cooling blood hemostasis, moisturising dryness and removing blood stasis, and nourishing liver and eye-brightening, and is mainly used for the treatment of retinal disease caused by the cloudy liver and the heat-burn winding. Since He Xue Ming Mu tablet has been the exclusive product in China, the State Protected Chinese Medicine, the National Reimbursement Drug List (2022 edition) and the National Essential Drug List (2018 edition) for the last 30 years since its commercialization, the Group has accumulated a large number of clinical research data and application experience in the field of retinal hemorrhage, which has been included in a number of guidelines/consensus such as the Practical Ophthalmic Medicine and the Expert Consensus on Clinical Application of He Xue Ming Mu Tablets for the Treatment of Wet Age-related Macular Degeneration (《和血明目片治療濕性年齡相關性黃斑變性臨床應用專家共識》) and provides valuable literature support for clinical use of the products.

Jinsang Series Products:

They are exclusive products nationwide, covering all the diseases of the throat, among which, Jinsang Sanjie Capsule is used for the treatment of chronic hoarseness disease caused by heat and poisoning storage and airtight blood stasis (vocal nodules, polyp of vocal cords, thickening of mucosa of vocal cords) and the resulting hoarseness. Jinsang Sanjie Capsule has been widely used in clinical application for more than 30 years since its commercialization. Jinsang Liyan Capsule is the only Chinese patent medicine for the treatment of throat diseases caused by intraocular obstruction of liver depression and phlegm and humidification. It is also an ideal medicine for the treatment of pharyngeal symptoms in clinical operation, gastroesophageal reflux pharyngitis, and chronic and thick pharyngitis. Jinsang Kaiyin Capsule is designed for the rapid effect of acute pharyngitis as well as throat redness, swelling, heat, pain and hoarning caused by acute pharyngitis. Several products have been included in the Guidelines for the Diagnosis and Treatment of Common Diseases in Otorhinolaryngology of Traditional Chinese Medicine (《中醫耳鼻咽喉科常見病診療指南》) issued by the Chinese Association of Traditional Chinese Medicine, the Clinical Drug Guidelines (《臨床用藥指南》) for the diagnosis and treatment of clinicians, the authoritative monographs of the Manual for Common Traditional Chinese Medicine of Otorhinolaryngology (《常見眼耳鼻咽喉科中成藥手冊》) and the Practical Otorhinolaryngology Head and Neck Surgery (《實用耳鼻咽喉頭頸外科學》), etc., and are included in a number of clinical pathways and expert diagnosis and treatment guidelines. In January 2022, the Expert Consensus on the Clinical Application of Jinsang Sanjie Capsules for the Treatment of Vocal Nodules and Polyp of Vocal Cords (《金嗓散結膠囊治療聲帶小結、聲帶息肉臨床應用專家共識》) was issued by the Chinese Association of Traditional Chinese Medicine, which has also provided new support for the evidence-based development of Jinsang Sanjie products. Jinsang Sanjie and Jinsang Kaiyin Capsules are products on the National Reimbursement Drug List. Jinsang Kaiyin and Qingyin are dual cross-over products with both prescription and over-the-counter drugs.

Maixuekang, Maixuekang capsules and Maixuekang enteric-coated tablets:

It has the effects of anticoagulation, antithrombosis, antifibrosis, and improvement of blood circulation, and can be used in the treatment of cerebro-cardiovascular diseases such as coronary heart disease, acute cerebral infarction, ischemic stroke, and unstable angina. It is included in the National Reimbursement Drug List and the Essential Drug List, and is currently the only Chinese patent medicine that is labeled with antithrombin activity units in China (each capsule/tablet is equivalent to 14 units of antithrombin activity). It has been included in many authoritative clinical guidelines, such as the Guideline for the Diagnosis and Treatment of Cerebral Infarction with the Integrated Traditional Chinese and Western Medicine, the Guidelines for Rational Use of Proprietary Chinese Medicines for Promoting Blood Circulation for Removing Blood Stasis, the Clinical Practice Guideline for Chinese Medicine in the Treatment of Idiopathic Membranous Nephropathy, and the Expert Consensus on the Use of Maixuekang Capsule (Enteric-coated Tablet) for Patients with Cardiovascular and Cerebrovascular diseases in Clinical Practice.

Rui Zhu® (polyvinyl alcohol eye drop):

It is a single-piece preservative-free artificial tear and currently the first-line drug for the treatment of dry eye. It is recommended by experts such as the Expert Consensus on Prevention and Control of Cataract Surgery in China (2021) (《中國白內障圍手術期幹眼防治專家共識(2021年)》), the Expert Consensus on Sterily Surgery in China (2020) (《中國幹眼專家共識(2020年)》), the Expert Consensus on Refractive Surgery in Laser Corneal Surgery in China (2019) (《中國激光角膜屈光手術圍手術期用藥專家共識(2019年)》), and the Expert Consensus on Diagnosis and Treatment of Functional Disorder of Bleacne in China (2017) (《我國瞼板腺功能障礙診斷與治療專家共識(2017年)》). Rui Zhu has good brand recognition and was awarded the China Well-known Trademark in 2017; and was awarded the CPEO Gold Award for eight consecutive years from 2016 to 2023, namely the "Healthy China Brand List".

Nuo Tong:

It is a nasal decongestant to relieve nasal congestion, and is suitable for relieving nasal congestion caused by acute and chronic rhinitis, sinusitis, allergic rhinitis, hypertrophic rhinitis and other nasal disorders. It does not contain hormones or ephedrine and is suitable for both adults and children. Nuo Tong is divided into two dosage forms: nasal drops and nasal spray, of which the nasal spray is the exclusive domestic dosage form and is the leading product among its generic counterparts. The product has been included in clinical guidelines such as Guidelines for the Diagnosis and Treatment of Allergic Rhinitis in China (Revised Edition 2022) (《中國變應性鼻炎診斷和治療指南(二零二二年，修訂版)》), Guidelines for the Diagnosis and Treatment of Allergic Rhinitis in Children (Revised Edition 2022) (《兒童變應性鼻炎診斷和治療指南(二零二二年，修訂版)》) and Recommendations for the Diagnosis and Treatment of Sinusitis in Children (《兒童鼻 – 鼻竇診斷和治療建議》).

Innovative R&D pipeline

The Group reserved five innovative drugs in the direction of clear clinical needs for anti-inflammatory and pain relief after ophthalmology surgery, pterygium, dry eye, myopia, demodex blepharitis and meibomian gland disease with demodex mites etc.:

GPN00833, an improved new drug hormone nano-suspension eye drops for anti-inflammatory and pain relief after ophthalmology surgery:

It is a potent glucocorticoid and has efficient local anti-inflammatory and strong capillary contraction effect. Its unique nano-preparation technique effectively eliminates the low bioavailability and safety risks caused by low water solubility of hormones products. Two overseas phase III clinical studies of the product have successfully reached the clinical endpoints. According to the clinical results, GPN00833 has significant effectiveness in the treatment of postoperative anti-inflammatory and analgesic effects after ophthalmology, and has a good safety profile. It has been approved for commercialization in the U.S. by the FDA in March 2024. Currently, the product has completed the first patient enrollment and administration of the phase III clinical study conducted in China in October 2023.

GPN00153, an improved new drug for the treatment of pterygium (CBT-001):

It is an innovative and improved product, Nintedanib, which is used for the treatment of pulmonary fibrosis. It inhibits neovascularization and tissue fibrosis. Currently, the phase II clinical trial has been completed in the United States with high safety and significant clinical efficacy, which can inhibit the growth of pterygium and control the aggravation of the disease. The global phase III clinical trial for CBT-001 has conducted in June 2022 and it has been approved to conduct phase III clinical trial in China by the NMPA in March 2023, and the first patient was enrolled and has started administration in March 2024.

GPN00136, a world-wide innovative drug for dry eye (BRM421):

It is small molecule peptide eye drops that can accelerate the division and proliferation of limbal stem cells, and in turn stimulate the repair of ocular surface. According to the phase II clinical study data completed in the United States, compared to cyclosporine eye drops currently commercialized for the treatment of dry eye, BRM421 has high safety and low irritation, as well as the potential to quickly alleviate the signs and symptoms of dry eye within two weeks. Currently, the product has conducted phase III clinical studies overseas. In terms of registration in China, it was approved to conduct phase II clinical study in April 2023.

Novel ophthalmic preparation GPN00884 for delaying the progression of myopia in children:

It is an innovative drug with a new mechanism jointly developed by the Group and the Eye Hospital of Wenzhou Medical University ("**WMU**"). Compared with low-concentration atropine eye drops, GPN00884 eye drops have no mydriasis effect, no adverse reactions such as photophobia and decreased accommodation, and the dosing period is not limited, which can improve patient compliance. The product has been approved to conduct phase I clinical study in China in March 2024, which was accepted by the NMPA, and the first patient was enrolled and has started administration in June same year.

GPN01768 (TP-03), a Global Innovative Ophthalmic Formulation for the Treatment of Demodex Blepharitis and Meibomian Gland Disease with Demodex Mites:

is a non-competitive antagonist selective for gamma-aminobutyric acid-gated chloride channels ("**GABA-Cl**"). By selectively inhibiting GABA-Cl in Demodex mites, TP-03 paralyzes and kills the mites, which are the root cause of Demodex blepharitis. The product is highly lipophilic, which promotes its absorption into the oils of eyelash follicles where mites reside. Currently the product has completed two pivotal clinical studies in the United States, both trials met the primary endpoint and all secondary endpoints, with statistical significance and no serious treatment-related adverse events. and was approved for commercialization by the United States Food and Drug Administration ("**FDA**") in July 2023. It is the first and only drug approved by the FDA for Demodex blepharitis. In addition, there are positive topline results of Phase II clinical research for the product in the United States for the treatment of MGD patients with Demodex mites. In terms of registration in China, the product has completed phase III clinical studies, and the follow-up registration work is being actively promoted.

Cerebro-cardiovascular Emergency Segment

The Group's cerebro-cardiovascular emergency segment specializes in both emergency care and chronic disease management. In terms of emergency care, the Group is listed as a "national essential drug production base", an "emergency medicines manufacturer for national ready reserve" and a "national centralized production base and construction unit for minority-variety medicines (drugs in short supply)", etc. with nearly 30 varieties, 14 of which are included in the national emergency drugs catalogue of China, while 16 of which are included in the shortage drugs catalogue, which has ranked the top in the industry in terms of product pipeline. Our products cover three major emergency scenarios, namely in-hospital emergency care, pre-hospital emergency care and civilian emergency care. Through this, we continue to provide cerebro-cardiovascular emergency patients in China with a portfolio of safe and effective products with application in multiple scenarios and various choices. In terms of chronic disease management, core products such as Neng Qi Lang, eplerenone tablets, Herbesser(合貝爽®及合心爽®) continue to lead the segmented market. Currently, there are more than 20 products under research in the cerebro-cardiovascular emergency segment. The Group will continue to invest in and develop products in the fields of cerebro-cardiovascular emergency and chronic disease treatment that are in urgent clinical need through a combination of independent innovation and research and development and making breakthroughs in difficult generic technologies.

Cerebro-cardiovascular emergency products

The products mainly cover the fields of blood pressure control, vascular active drugs, myocardial metabolism, heart failure and anticoagulation. The main products include Li Shu An (norepinephrine bitartrate injection, epinephrine hydrochloride injection), Nuo Fu Kang (methoxamine hydrochloride injection), Neng Qi Lang (coenzyme Q10 tablets), eplerenone tablets, and Herbesser(合貝爽®及合心爽®, diltiazem hydrochloride tablets/diltiazem hydrochloride extended-release capsule, diltiazem hydrochloride injection), etc.

Li Shu An®, the norepinephrine bitartrate injection and epinephrine hydrochloride injection:

The norepinephrine bitartrate injection is used for blood pressure control in acute low blood pressure state, and can also be used for blood pressure maintenance after the resuscitation from cardiac arrest. The epinephrine hydrochloride injection is suitable for severe respiratory difficulties caused by bronchospasm, which can quickly relieve the allergic shock caused by drugs, and is a major rescue medication for cardiopulmonary resuscitation of cardiac arrest caused by various reasons. Both products are included in the National Reimbursement Drug List and the National Essential Drug List, and the norepinephrine bitartrate injection passed the consistency evaluation for the first time in China in 2021. As important emergency medicines, the two products are recommended by a number of guidelines and expert consensus, such as the Chinese Consensus on Geriatric Cardiopulmonary Resuscitation Emergency (《中國老年心肺復蘇急診專家共識》), the AHA Guidelines for Cardiopulmonary Resuscitation and Cardiovascular Emergency: Advanced Cardiovascular Life Support for Adults (《AHA心肺復蘇與心血管急救指南：成人高級心血管生命支持》), the Expert Consensus on the Application of Vasopressors in Emergency Shock (2021) (《血管加壓藥物在急診休克中的應用專家共識(2021)》), the Consensus of Chinese Emergency Medicine Experts on Diagnosis and Treatment of Post-Adult Cardiac Arrest Syndrome (2021) (《成人心臟驟停後綜合症診斷和治療中國急診專家共識(2021)》), the Expert Consensus on Perioperative Management of Elderly Septic Patients (2021) (《老年膿毒症患者圍術期管理專家共識(2021)》), the European Academy of Allergy and Clinical Immunology Guidelines: Guidelines for Anaphylaxis (2021) (《歐洲變態反應與臨床免疫學會指南：嚴重過敏反應指南(2021版)》), European Resuscitation Council Guidelines (2021) (《歐洲復蘇學會指南(2021)》), the Guidelines for the Treatment of Sepsis/Septic Shock in Emergency in China (2018) (《中國膿毒症/膿毒性休克急診治療指南(2018)》), the Expert Consensus on Diagnosis and Treatment of Cardiogenic Shock in China (2018) (《心源性休克診斷和治療中國專家共識(2018)》), the Consensus of Chinese Emergency Medicine Experts on Diagnosis and Treatment of Traumatic Hemorrhagic Shock in China (2017) (《創傷失血性休克診治中國急診專家共識(2017)》), the Guidelines for Diagnosis and Treatment of ESC Urgent and Chronic Heart Failure in 2016 (《2016 ESC急、慢性心力衰竭診斷和治療指南》), and the Guidelines for Rational Use of Medication for Heart Failure (2nd Edition) (《心力衰竭合理用藥指南(第2版)》), and the clinical status of the products is remarkable.

Li Qi An® epinephrine hydrochloride injection (pre-filled):

In July 2022, the "epinephrine hydrochloride injection (pre-filled)" independently developed by the Group was approved for commercialization. It is currently the first epinephrine pre-filled preparation being commercialized in China. At present, all other epinephrine products for commercialization in China are packaged in ampoule bottles and are required to be prepared on site for use, resulting in wastage of drug solution and inevitable generation of glass chips and causing the risk of secondary contamination. The Group's pre-filled packaging products do not need to be prepared and can be used directly, with the characteristics of convenient operation, accurate medication, avoiding the generation of glass chips, and reducing secondary contamination. While optimizing the quality of the products, it can maximize the precious rescue time for patients and provide a more efficient product portfolio for doctors and patients to cope with more complex clinical emergency scenarios.

Jext® pre-filled epinephrine auto-injector:

It is a one-off automatic syringe embedded with the sterile solution of epinephrine. By injecting single-dose epinephrine to the outside of the leg muscle (muscle injection), the product can urgently treat sudden and life-threatening anaphylaxis caused by insect bites, food, drugs or exercise. The product has been approved for commercialization in 21 countries or regions such as Spain, the United Kingdom, France, Germany, Korea and Hong Kong, China, etc., and has been launched worldwide for more than 10 years. Its safety and efficacy have been fully verified. At present, the product has been granted approval for Guangdong-Hong Kong-Macao Greater Bay Area Imported Pharmaceuticals for Urgent Clinical Needs in Mainland China in January 2023, and patients can purchase the product in designated medical institutions in the Guangdong-Hong Kong-Macao Greater Bay Area ("**Greater Bay Area**") of China.

Nuo Fu Kang®, the methoxamine hydrochloride injection:

It is used for the treatment of low blood pressure during general anesthesia and to prevent the occurrence of abnormal heart rate, to treat low blood pressure induced by the internal obstruction of the vertebral tube and to terminate arrays of ventricular hyperactivity. The product is the first generic drug of the Group in China and has been commercialized for more than 30 years. It has been recommended for use by guidelines and expert consensus, including the Expert Consensus on Anesthesia Management for Cranial Brain Disease Intervention in China (2016) (《中國顱腦疾病介入治療麻醉管理專家共識(2016)》), the Expert Consensus on Perioperative Use of α1 Adrenergic Receptor Agonists (2017 Edition) (《α1腎上腺素能受體激動劑圍術期應用專家共識(2017版)》), the Expert Consensus on Obstetric Anesthesia in China (2020) (《中國產科麻醉專家共識(2020)》), and the Consensus on the Clinical Management of Chinese Experts in the Peripheral Anesthesia Period of Non-cardiac Surgery in Patients with Cardiac Disease (2020) (《心臟病患者非心臟手術圍麻醉期中國專家臨床管理共識(2020年)》), the Guiding Opinions on the Management of Peripheral Anesthesia in Chinese Geriatric Patients (2020) (《中國老年患者圍術期麻醉管理指導意見(2020)》) and Expert Consensus on Anaesthesia Practice for Accelerated Recovery after Caesarean Section (2022)(剖宮產術後加速康復麻醉實踐專家共識(2022)).

Neng Qi Lang®, the coenzyme Q10 tablets:

It is used to improve myocardial metabolism and energy supply, with the function of promoting oxidization phosphorylation reaction and protecting structural integrity of biological membranes. For patients with chronic cardiac insufficiency, it can significantly improve the symptoms of shortness of breath and fatigue, effectively combine with regular treatment to improve the prognosis of patients, and improve their quality of life. The product has been commercialized for more than 30 years and has been successively included in 20 guidelines and expert consensus, including the Guidelines for Diagnosis and Treatment of Heart Failure in China (2024 edition) (《中國心力衰竭診斷和治療指南2024版》), the Expert Consensus on Diagnosis and Treatment of Severe Fever with Thrombocytopenia Syndrome (《重症發熱伴血小板減少綜合徵診治專家共識》), the Chinese Expert Consensus on the Clinical Application of Drugs to Improve Myocardial Metabolism (2021) (《改善心肌代謝藥物臨床應用中國專家共識(2021)》), the Chinese Expert Consensus on Diagnosis and Treatment of Chronic Heart Failure for the Elderly (2021) (《老年人慢性心力衰竭診治中國專家共識(2021)》), the 2020 Expert Consensus on Prevention and Treatment of Heart Failure after Myocardial Infarction (《2020心肌梗死後心力衰竭防治專家共識》), the Guidelines for the Diagnosis and Treatment of Dilated Cardiomyopathy 2018 in China (《2018中國擴張型心肌病診斷和治療指南》) and the Diagnosis and Treatment Advice for Children's Heart Failure (《兒童心力衰竭診斷和治療建議》).

Limetone® eplerenone tablets (力美通®依普利酮片):

It is a new MRA drug. It can block heart disease and vascular damage caused by excessive activation of mineralocorticoid receptor ("**MR**") by binding to the MR. The Guidelines for Prevention and Treatment of Hypertension in China (2018 Revision) (《中國高血壓防治指南(2018年修訂版)》), the Guidelines for Diagnosis and Treatment of Heart Failure in China (《中國心力衰竭診斷和治療指南》) and the Multidisciplinary Expert Consensus for Clinical Application of Mineralocorticoid Receptor Antagonists in China (2022) (《鹽皮質激素受體拮抗劑臨床應用多學科中國專家共識(2022)》), the European Society of Hypertension/European Society of Cardiology: Guidelines for the Management of Hypertension (《歐洲高血壓學會／歐洲心臟病學會：高血壓管理指南》) and the Guidelines for the Management of Heart Failure in the United States (《美國心力衰竭管理指南》) and many other well-known clinical guidelines and expert consensus at home and abroad recommend the clinical use of MRA drugs in the treatment of cardiovascular diseases such as heart failure and hypertension. Compared with the first-generation MRA drug Spironolactone, Eplerenone has higher MR selectivity and lower affinity for androgen receptor and progesterone receptor, so it has less side effects and is a safe and effective new generation of MRA drug. This product was approved for commercialization by the NMPA in August 2023, bridging the gap of second-generation selective mineralocorticoid receptor antagonist drugs in China. In May 2024, the first prescription was completed and the commercialization was officially realized in China.

Herbesser (合貝爽®及合心爽®, diltiazem hydrochloride tablets/diltiazem hydrochloride extended-release capsule, diltiazem hydrochloride injection):

As a typical calcium channel blocker with clear clinical efficacy and high safety features. It is available in immediate-release oral dosage form, extended-release dosage form and injectable dosage form, which can greatly satisfy the clinical needs of patients with hypertension, coronary heart disease and other cerebro-cardiovascular diseases. It has been included in many authoritative clinical guidelines, such as the Guidelines for Prevention and Treatment of Hypertension in China (《中國高血壓防治指南》), the Guidelines for the Rational Use of Drugs for Hypertension (《高血壓合理用藥指南》), the Guidelines for the rational use of drugs for coronary heart disease (《冠心病合理用藥指南》), the Guidelines for the Diagnosis and Treatment of Stable Coronary Heart Disease (《穩定性冠心病診斷與治療指南》), the Guideline for Rational Medication of Supraventricular Tachycardia in Primary Care (《室上性心動過速基層合理用藥指南》), the Guidelines for the Diagnosis and Treatment for Chinese Adult Patients with Hypertrophic Cardiomyopathy (《中國成人肥厚型心肌病診斷與治療指南》) and the Chinese Guidelines on Diagnosis and Management of Atrial Fibrillation (《心房顫動和治療中國指南》).

Pharmaceutical Raw Materials Segment

The Group's pharmaceutical raw materials segment has a rich product pipeline and significant advantages in terms of product concentration. As an important link in the front-end of the integrated supply chain of raw materials and preparations, the Group owns a series of modernized production bases of pharmaceutical raw materials with complete equipment, superb technique, outstanding industrialization capability and standardized quality control, and has already constructed a comprehensive industrial system for integrated raw materials and preparations. With the strategy of "focusing on its advantages, pursuing steady improvements, and combining imitation and innovation", the Group focuses on four major areas, namely cerebro-cardiovascular, anti-infection, antipyretic analgesic and the digestive system, and fully supports the production of preparations in the field of pharmaceutical technology, so as to ensure high quality standard and consistency of the Company's preparations at the source, and truly realize the integration of upstream and downstream industrial advantages.

mRNA platform

The Group's mRNA platform focuses on the development of anti-tumor and anti-infection mRNA drugs. Currently, the Group has completed the establishment of mRNA production technology and liposomal nanoparticles ("**LNP**") delivery technology platform. ARC01 (A002), a therapeutic tumor vaccine against human papillomavirus type 16 ("**HPV-16**")-positive advanced unresectable or recurrent/metastatic solid tumors, which is under development by the platform, which was approved to conduct a Phase I clinical study in China in January 2024. It is the first mRNA therapeutic tumor vaccine against HPV-positive tumors that has been approved for clinical trials in China. Through the LNP delivery technology, mRNAs encoding E6 and E7 antigens of HPV-16 transfect autologous host cells and are translated into corresponding antigens, and then stimulate the body to produce specific humoral and cellular immunity under the joint action of TriMix® immunoadjuvant, which can ultimately achieve anti-tumor effects. Among them, the LNP delivery technology and TriMix® adjuvant technology are exclusive patented technologies that can significantly enhance the body's immune response and improve the immunotherapeutic effect of the vaccine.

Biotechnology

The Group pursues the concept of green, low-carbon and sustainable development and promotes high-quality development of the segment with the world's leading innovative technology in synthetic biotechnology. The amino acid products and biopesticides are the core business in the field of biotechnology, and it is positioned as a global premium service provider of high-quality amino acids and high-end biopesticides. The Group's development in the biological field focuses on technological innovation and the construction of high-quality systems. Currently, we have approximately 110 R&D personnel with professional backgrounds in cross-disciplinary disciplines such as microbiology, applied chemistry, biochemistry, pharmacology and food science, hold approximately 300 invention patents and has led and participated in the formulation of more than 60 national, industrial and group standards, with approximately 50 standards published. We have a complete domestic and international quality system certification, and have won many honors such as the National Manufacturing Individual Champion (國家製造業單項冠軍) and the National Specialized New Enterprise (國家專精特新企業) and the National Intellectual Property Demonstration Enterprise (國家知識產權示範企業).

Amino acids segment

The Group has been cultivating in the field of amino acids for more than 20 years and has always adhered to the spirit of technological innovation, taking synthetic biology as the core, it pioneered a world's leading innovative technology in China based on biotechnology method to produce various amino acids by biological method, which filled the gap in the industry. The Group has undertaken the project for national industrial strong foundation engineering and the industrial foundation transformation project of the PRC to ensure the safety and stability of the supply chain and industrial chain of high-quality amino acids in China.

The Group has always adhered to the core business philosophy of "new technology, high quality, industrial chain, and internationalization" and has continued to strengthen the expansion of the amino acid industry. Based on pharmaceutical-grade amino acids and by leveraging our industrial advantages, the Group continues to expand into diversified amino acids.

New technology:

With synthetic biology as the core and after years of scientific research, at present, we have built eight technology platforms, including synthetic biology, enzyme engineering, fermentation engineering, process optimization, quality research and application transformation, while taking initiatives in construction of cell factory, fine control of fermentation processes, and research of the full technology chain of separation and purification. Through the innovation and integration of several sub technology areas, we have built an integrated synergistic system with new product development, new technology engineering, industrialization and application solutions, which provides strong support for continuous innovation and industrialization transfer, and some of the technologies have filled the domestic gaps in China. Currently, the Group has established long-term strategic cooperation relationship with a number of scientific research institutions such as Tsinghua University, Wuhan University, Huazhong University of Science and Technology, East China University of Science and Technology, Tianjin University of Science and Technology and Huazhong Agricultural University, under which, a new amino acid fermentation technology and an enzyme expression system were developed. Meanwhile, the technological development of cell culture media-level amino acid has been further deepened, providing technical support to the application study of cell cultivation for biological drugs. We have applied the technologies of molecular biology and proteomics to modify the structure of reactive enzymes, thus effectively improving the activity of reactive enzymes and the yield and quality of the products. Among them, the fermentation production process with strain construction optimization as the core and the enzyme conversion production process with immobilized enzymes as the core can not only replaces the traditional synthesis process, improving process safety and production convenience, but also significantly reduces carbon dioxide emissions during the production process, which fully proves the development concept of energy saving, emission reduction and green environment protection of emission peak and carbon neutrality, generating great economic and environmental benefits. The industrial technology highway built by the Group in the amino acid segment is beginning to take shape, which has laid a solid foundation for Original technological innovation and product industrialization.

The Group attaches great importance to the construction of R&D team and the close integration of production and research. At present, the amino acid segment has a core technical team led by talents from the 100 Talents Plan of Hebei Province (湖北省百人計劃). The innovative model of combining production, academia, research and application in this segment, as well as the echelon of technical innovation talents with clear division of labor and complementary strengths, has yielded fruitful results with the number of granted invention patents ranking at the leading level in the same industry.

High quality:

The Group's amino acid products have a complete quality certification system at home and abroad.

Many products have passed the drug/food system certification and registration in Europe, the United States, Japan, Southeast Asia, China and other countries and regions, including European Union GMP certification, Export to European Union WC certification, the Accreditation certificate of foreign drug manufacturer in Japan, KFDA Registration in Korea; as well as the ISO quality management system certification, the FSSC22000 food system certification, GRAS certification in the United States, the HALAL certification, the KOSHER certification, etc. Meanwhile, the Group has also made efforts to increase registration in new economies such as South America. Our comprehensive system certification and registration have demonstrated the Group's strong competitiveness for business expansion in overseas markets.

Industry chain:

The Group has nearly 50 types of various amino acids and their derivatives. It has 24 registered amino acid APIs and is the pharmaceutical company with the largest number of registered amino acid APIs in China. The rich amino acid product cluster can better meet the customized needs of the downstream market, provide one-stop services of multiple varieties and specifications, and enhance customer adhesion in high-end application scenarios. In addition to raw material products, the Group is also actively expanding its pharmaceutical products. Two of the self-developed functional dietary supplements, namely the U.S. patented citrulline and taurine preparations (which is used to enhance exercise endurance) and the acetylcysteine preparations (which protects respiratory health and enhances immunity) have obtained the U.S. FDA approval and was officially commercialized in the United States for sales in 2021. The Group already has over 10 independently developed functional foods approved for commercialization in China.

Internationalization:

The sales network of the Group's amino acid segment covers more than 140 countries and regions worldwide, including mainstream markets in Europe, the United States, Japan, Southeast Asia and China, with overseas business accounting for more than 50% of the total. Among which, some of our amino acid varieties ranking among the top three in terms of market share. Relying on technological breakthroughs and cost advantages, the core products have long served domestic and international high-quality customers including Zambon, Sanofi, Nestle and other Fortune 500 companies, and established long-term and stable cooperative relationships with customers in the upstream and downstream of the industrial chain as well as a high brand awareness and market reputation worldwide, which has laid a solid customer base for the continuous and rapid growth of the segment's performance.

In the future, the Group will continue to rely on its world-leading new bio-method manufacturing technology in the field of high-quality amino acids, solid industrial base and industrial accumulation, rich amino acid product clusters, high-standard quality certification systems, strong international registration and commercialization capabilities, with a focus on high-end parenteral nutrition preparations, innovative peptide drugs, cell culture base and other pharmaceutical-related high value-added fields, as well as functional dietary supplements such as sports protection, special medical and infant food, beauty and pet food and other large health consumer areas. The extensive market space and huge development potential of the downstream segment will provide the Group's amino acid segment with strong and sustainable development momentum.

FINANCIAL REVIEW

Revenue and profit

For the six months ended 30 June 2024 ("**the current period under review**" or "**the period**"), the business of the Group grew steadily and recorded a revenue of approximately HK$6,047.24 million (the same period of last year: HK$5,989.49 million), representing a year-on-year increase of approximately 1.0%. If disregarding the impact of exchange rate fluctuation between RMB and HK$, it increased by approximately 5.4% compared to the same period in 2023. During the current period under review, the profit for the period attributable to the owners of the Company was approximately HK$1,557.95 million, a year-on-year increase of approximately 51.4% as compared with the same period in 2023. If disregarding the impact of exchange rate fluctuation between RMB and HK$, it increased by approximately 58.0% compared to the same period of 2023. The normalized profit for the period attributable to the owners of the Company[1] was approximately HK$1,081.31 million, an increase of approximately 35.1% compared to the same period of last year. If disregarding the impact of exchange rate fluctuation between RMB and HK$, it increased by approximately 41.0% compared to the same period in 2023.

During the period, the Group recorded a revenue of HK$342.75 million from the nuclear medicine anti-tumor diagnosis and treatment and cerebro-cardiovascular precision interventional diagnosis and treatment technology products, representing an increase of approximately 140.8% (disregarding the impact of exchange rate fluctuation between RMB and HK$) as compared with the same period of 2023 (approximately HK$148.59 million). In particular, we recorded a revenue of HK$207.24 million from the nuclear medicine anti-tumor sector, representing an increase of approximately 107.6% (disregarding the impact of exchange rate fluctuation between RMB and HK$) as compared with the same period of 2023 (approximately HK$104.20 million), due to revenue growth as a result of the rapid growth in clinical demand for core products; and a revenue of HK$135.51 million from the cerebro-cardiovascular precision interventional diagnosis and treatment sector.

Note:

1. The normalized profit for the period attributable to the owners of the Group excluded the impact from the fair value change of investment in Telix.

During the period, the Group recorded a revenue of approximately HK$3,772.94 million from pharmaceutical technology products, basically approximate to the level of the same period last year (disregarding the impact of exchange rate fluctuation between RMB and HK$) as compared with the same period of 2023 (approximately HK$3,982.17 million). In particular, we recorded a revenue of approximately HK$962.55 million from the respiratory and critical and severe disease sector, representing an increase of approximately 21.0% (disregarding the impact of exchange rate fluctuation between RMB and HK$) as compared with the same period of 2023 (approximately HK$830.27 million), mainly due to the continued growth in clinical demand for core products and the volume growth of new products Enerzair® Breezhaler® and Atectura® Breezhaler®; a revenue of approximately HK$1,230.82 million from the ophthalmology and otorhinolaryngology sector, basically approximate to the level of the same period last year (disregarding the impact of exchange rate fluctuation between RMB and HK$) as compared with the same period of 2023 (approximately HK$1,310.98 million); and a revenue of approximately HK$1,167.41 million from the cerebro-cardiovascular emergency sector, representing a decrease of 16.6% (disregarding the impact of exchange rate fluctuation between RMB and HK$) as compared with the same period of 2023 (approximately HK$1,461.29 million), mainly due to the fact that some products have been affected by the price reduction as a result of centralized procurement.

During the period, the Group recorded a revenue of approximately HK$1,931.54 million from biotechnology products, representing an increase of approximately 8.5% (disregarding the impact of exchange rate fluctuation between RMB and HK$) as compared with the same period of 2023 (approximately HK$1,858.73 million). In particular, we recorded a revenue of approximately HK$1,502.07 million from the amino acid sector (including taurine), representing an increase of approximately 2.2% (disregarding the impact of exchange rate fluctuation between RMB and HK$) as compared with the same period of 2023 (approximately HK$1,534.44 million), with a steady growth in segment revenue.

Distribution costs and administrative expenses

Up to 30 June 2024, the Group's distribution costs and administrative expenses were approximately HK$1,611.95 million and HK$606.20 million respectively as compared to approximately HK$1,637.68 million and HK$695.89 million respectively for the corresponding period in 2023. The distribution costs during the current period decreased by approximately HK$25.73 million was mainly due to the implementation of precise marketing strategies has significantly improved sales efficiency. The administrative expenses also decreased by approximately HK$89.69 million as compared to the corresponding period of last year mainly due to the significant cost reduction and efficiency improvement effects.

Finance costs

Up to 30 June 2024, the Group's finance costs were approximately HK$86.12 million as compared to approximately HK$113.23 million for the corresponding period in 2023. The decrease in finance costs was due to the reduction in borrowing costs through the replacement of US dollar loans.

R&D and project investment

Up to 30 June 2024, the Group continuously invested resources in the stages of research project and introduction of innovative projects. If including the R&D expenses and also the capitalized R&D expenses, prepayments for new projects and other investments, the Group's investment in R&D and various projects is approximately HK$1,480 million.

Receivables and payables

Up to 30 June 2024, trade and other receivables of the Group amounted to approximately HK$4,519.36 million, representing an increase of approximately HK$1,451.30 million as compared to the balance in 2023, mainly due to the increase in trade and bills receivables of approximately HK$1,350.54 million as compared to the closing balance of last year. This is mainly a result of the increase in business during the current period, and also as general market practise it will put more force to collect receivables at the year end and thus the trade receivable year-end balances always recorded comparatively lower.

Up to 30 June 2024, the Group's trade and other payables amounted to approximately HK$3,517.76 million, representing an increase of approximately HK$688.06 million as compared to the balance in 2023, mainly due to the increase in trade and bills payables of approximately HK$243.88 million as a result of the increase in business during the period. Furthermore, in order to cope with the expansion of business scope, we accrued additional selling and operating expenses such as salaries, marketing and promotion expenses and R&D expenses amounted to approximately HK$395.54 million.

Significant Investments

The Group's investments with value over 5% of value of its total assets are considered as significant investments. In respect of the Group's significant investments as at 30 June 2024, set out below are certain information on those investments and the comparative figures as at 31 December 2023:

Name	Carrying value of interests in associates as at:		Size relative to the Group's total assets as at:	
	30 June 2024	31 December 2023	**30 June 2024**	31 December 2023
	(HK$, million)	*(HK$, million)*		
Grand Pharma Sphere Pte Limited ("**Grand Pharma Sphere**") *(Note A)*	**4,970**	4,991	**20.0%**	22.2%
Shanghai Xudong Haipu Pharmaceutical Company Limited ("**Xudong Haipu**") *(Note B)*	**2,243**	2,240	**9.0%**	10.0%
Others *(Note C)*	**705**	633	**2.8%**	2.8%
Total interests in associates	**7,918**	7,864	**31.8%**	34.9%

Note A: Grand Pharma Sphere is the holding company of a group of companies principally engaged in the research and development, manufacturing and sales of nuclear medicine and tumour intervention products. The Group effectively owned approximately 57.98% equity interests of it. For the six months ended 30 June 2024, the Group's share of loss in Grand Pharma Sphere was approximately HK$23.30 million (for the year ended 31 December 2023: approximately HK$89.07 million).

Note B: Xudong Haipu and its subsidiaries is a group of companies principally engaged in the manufacturing and sales of pharmaceutical injections of various volumes. The Group effectively owned 55% equity interests of it. For the six months ended 30 June 2024, the Group's share of profit in Xudong Haipu was approximately HK$46.69 million (for the year ended 31 December 2023: approximately: HK$104.70 million).

Note C: Others represents the aggregate of carrying value of interests in various associates, in which none of these investments individually accounted for over 5% of the total assets of the Group as at 30 June 2024 and 31 December 2023.

The quote fair value of significant investments in associates is not available, since the significant associates are private entities and do not have quoted market price. The results and assets and liabilities of associates are incorporated in the consolidated financial statements of the Group using the equity method of accounting.

The Group may consider to make investments in these associates due to different criteria, mainly including:

1. Looking for opportunities to enter into new markets and expand product pools. For instance, the investment in Grand Pharma Sphere offered an opportunity for the Group to venture into the field of nuclear drug anti-tumor, and investment in other associates may help the Group get into other markets like grasp advanced technology and step into the global market of cardiovascular interventional medical devices;

2. Looking for synergy effect to the Group's existing products and markets. For example, Xudong Haipu's core product line may create synergy with the Group's preparation products, and enrich the Group's core product pool in the areas of emergency medications and cerebro-cardiovascular and respiratory products. It can also strengthen the Group's product quality, market share and brand in those areas;

3. Seeking opportunities to cooperate with companies in early R&D stage and obtain the commercial rights for products with strong potentials.

For further details of the product research and development and business prospects of these associates, please refer to the section with heading "Business Review and Prospects" above.

Research and development

The Group has sufficient innovation pipeline. During the Period, there were accumulatively 141 projects under research and 49 innovation projects, which were in different stages from preclinical to new drug commercialization application. The pipeline layout was reasonable, forming a good echelon effect.

R&D Pipeline

Field	Sector	Direction	Product	Indication	R&D progress						
					Preclinical	IND/Model Inspection	Phase I	Phase II	Phase III	NDA/Registration	Launch
Pharmaceutical Technology	ENT	Ophthalmology	GPN00136 (BRM421)	Dry eye				●	●		
			GPN00153 (CBT-001)	Pterygium					● ●		
			GPN00833	Eye inflammation					●		●
			TP-03	Demodectic blepharitis					●		●
				Meibomian gland dysfunction associated with demodex				●			
			GPN00884	Myopia prevention and control			●				
	Respiratory and critical and severe disease	Respiratory	Ryaltris	Allergic rhinitis						●	●
		Critical and severe diseases	STC3141	Sepsis				●			
			APAD	Sepsis			●				
	mRNA platform	Tumor	ARC01 (A002)	HPV16 positive solid tumor			● ●				
Technologies on nuclear medicine and anti-tumor diagnosis and treatment as well as cerebro-cardiovascular precision interventional diagnosis and treatment	Nuclear medicine and anti-tumor diagnosis and treatment	Interventional treatment	Y-90 microsphere injection	Primary hepatic cancer					●		
			Thermosensitive embolic agent product	Hypervascular parenchymal organs tumor			●				
			Kona	Cerebral arteriovenous malformation						●	
			AuroLase	Prostate cancer						●	
		Radionuclide-drug conjugate (RDC)	TLX591 (177Lu-rosapatumab)	Prostate cancer	●				●		
			TLX591-CDx (68Ga-PSMA-11)	Prostate cancer - diagnosis					●		●
			TLX250 (177Lu-girentuximab)	Clear cell renal cell carcinoma	●			●			
			TLX250-CDx (89Zr-girentuximab)	Clear cell renal cell carcinoma - diagnosis					●	●	
			TLX101 (131I-IPA)	Glioblastoma			●	●			
			TOCscan®	Gastroenteropancreatic neuroendocrine tumor - diagnosis	●						●
			ITM-11	Gastroenteropancreatic neuroendocrine tumor					● ●		
			ITM-41	Malignant tumor bone metastases	● ●						
	Cerebro-cardiovascular precision interventional diagnosis and treatment	Access management – Peripheral vascular intervention	aXess	Hemodialysis	●		●				
			LEGFLOW DCB	Peripheral vascular disease					●		●
		Access management – Neurointervention	Stent retriever	Ischemic stroke						●	
			DCB	Intracranial stenosis	●						
		Structural heart disease – Structural heart disease	Saturn	Mitral regurgitation	●		●				
		Electrophysiology and heart failure – Electrophysiology	Heartlight X3	Atrial fibrillation						●	●
		Electrophysiology and heart failure – Heart failure	CoRisma	Heart failure	● ●						

● Mainland China ● Overseas

R&D Center

Currently, the Group is involved in and has established a number of R&D technology platforms and R&D centers around the world:

In the field of pharmaceutical technology, the International R&D Center in Optics Valley in Wuhan, China is the main R&D body of the Group in the pharmaceutical technology field in China, providing technical support for the R&D of the Group's high-end preparation products; the Glycomics technology platform is located at the R&D center in Australia, focusing on the development of antiviral drugs; the mRNA technology platform is located in Nanjing, China, focusing on the development of anti-tumor and anti-infective mRNA drugs, and will further expand into the fields of rare disease and protein replacement therapy in the future.

In the segment of nuclear medicine anti-tumor diagnosis and treatment, the tumor intervention technology platform and the RDC technology platform involve the Boston R&D Center in the United States and the Grand Pharmaceutical – Shandong University Radiopharmaceutical Research Institute in China, respectively.

In the cerebro-cardiovascular precision interventional diagnosis and treatment sector, the Group's high-end medical device R&D technology platform comprises the International R&D Center in Optics Valley in Wuhan, the Changzhou Device R&D Center and the Device R&D Center in Shanghai.

R&D Team

As a technology-based innovative pharmaceutical enterprise, the Group has long been committed to building a high-end innovative R&D talent system to promote the global development of innovative projects. During the year, the Group, together with its associates, has a total of more than 700 R&D personnel, of which 450 are master's degree and doctoral degree holders, accounting for over 60%. All professional leaders and core team members of each segment have academic background in clinical medicine or pharmacy, while some of whom also have overseas education or working experience.

Development of Generic Drugs

During the period under review, hydroxychloroquine sulfate tablets, diquaphosphate sodium eye drops (地誇磷酸鈉滴眼液), Macitentan tablets, pentoxifylline injection and metaraminol bitartrate injection have been issued drug registration certificates by the NMPA.

Consistency Evaluation

During the period under review, hydroxychloroquine sulfate tablets, diquafosol sodium eye drops, Macitentan tablets, pentoxifylline injection and metaraminol bitartrate injection were approved or deemed to have passed the consistency evaluation, and new applications were made for aminophylline injection, phentolamine mesylate injection, metoprolol tartrate injection, isoproterenol hydrochloride injection, praproprofen eye drops, dexrazoxane for injection, sodium ibandronate injection and pasireotide diaspartate injection. At present, a total of 38 products of the Group have been approved or deemed to have passed the consistency evaluation, and other 21 products are under review.

Intellectual Property Protection

During the period under review, the Group had an addition of 30 applications. There were 50 new patents being granted, of which 31 were invention patents, accounting for 62%, and 3 new foreign patents being granted. The Group has accumulated 708 valid patents, of which 428 are valid invention patents. The Group attaches great importance to the protection of intellectual property rights in independent innovation projects, with 128 patents in the field of innovation. There were 14 new patents applied in the anti-infection field, including 4 international PCT applications, and the applications for a total of 53 patent family members, and the core patents have been granted in China, the United States, Europe, Japan, Israel, Singapore and Eurasia. In terms of the mRNA technology platform, we have made 2 new PCT applications around the technology platform, with 31 patents in the field of nuclear medicine.

Commercialization Capability

The Group's performance continued to improve, and the continuous commercialization of innovative products and profit contribution cannot be separated from the continuous improvement of commercialization capabilities. As at the date of this announcement, the Group had over 4,100 sales personnel, of which more than 3,600 were in the pharmaceutical area (including OTC), covering more than 70,000 hospitals and primary medical and healthcare institutions in China, of which more than 13,000 were ranked hospitals. In the OTC area, we had over 1,000 sales personnel with a reach of more than 270,000 pharmacies in China. The cerebro-cardiovascular precision interventional diagnosis and treatment segment had a sales team comprising nearly 100 staff covering over 1,500 hospitals. The nuclear medicine anti-tumor diagnosis and treatment segment has nearly 400 sales personnel worldwide, with its global sales network covering more than 50 countries and regions. It has also actively carried out the hospital admission and academic promotion of Yttrium-90 microsphere injections in China.

International Standard

The Group continues to accelerate the pace of globalization and has a number of independently operating overseas companies in the fields of nuclear medicine anti-tumor diagnosis and treatment, cerebro-cardiovascular precision interventional diagnosis and treatment, and critical and severe diseases, etc. The Group has advanced overseas clinical trials of a number of global innovative products and obtained eight clinical approvals in five countries, including the United States, Australia, Belgium, Poland and the United Kingdom, involving a number of indications such as primary liver cancer and sepsis. Currently, the Group has nearly 320 employees overseas.

Material Investment, M&A and Cooperation

The Group continued to implement the development strategy of "self-development + global expansion", further exploring high– quality innovative projects around the world to expand the Group's product pipeline and enhance the Group's comprehensive strengths and putting vigorous efforts in transformation towards innovation and internationalization. In 2024 up to the date of this announcement, the Group has carried out the following material investment, M&A and cooperation:

- Acquisition of Equity Interest in Duoputai Pharmaceutical Technology

  In December 2023 and January 2024, Xi'an Beilin, a subsidiary of the Group, entered into two equity interest investment agreements with Chongqing Duoputai Pharmaceutical Co., LTD. ("Duoputai Pharmaceutical") to acquire 90% equity interest of Chongqing Duoputai Pharmaceutical Technology Co., Ltd.*(重慶多普泰醫藥科技有限公司, "Duoputai Pharmaceutical Technology") at a consideration of approximately RMB631,800,000 in aggregate. The equity transfer was completed in March 2024 and we acquired the product rights of its core traditional Chinese medicine products, Maixuekang series, Duoputai Pharmaceutical Technology has become a non-wholly owned subsidiary of the Group. The acquisition not only enriches the Group's traditional Chinese medicine product pipeline in the ENT segment, but also further consolidates the Group's comprehensive market competitiveness in the direction of traditional Chinese medicine.

- Introduction of a Global Innovative Product for the Treatment of Demodex Blepharitis and Meibomian Gland Disease with Demodex Mites

  In March 2024, the Group entered into a strategic cooperation agreement for product introduction with LianBio Development (HK) Limited and Tarsus Pharmaceuticals, Inc. ("Tarsus"). After the relevant conditions are met, the Group will acquire the exclusive development, production and commercialization rights in Greater China Region (Mainland China, Hong Kong Special Administrative Region of China, Macau Special Administrative Region of China, and Taiwan Region, the "Licensed Region") for TP-03, a global innovative ophthalmic preparation for the treatment of Demodex blepharitis and Meibomian Gland Disease with Demodex Mites ("MGD") in patients with Demodex mites with an upfront payment of USD15 million and a certain amount of registration milestone fees. This strategic cooperation will deepen the strategic plan of the Group's products in the field of ophthalmology.

- Acquisition of Equity Interest in Baiji Pharmaceutical

  In July 2024, Beijing Grand Jiuhe Pharmaceutical Co., Ltd.*(北京遠大九和藥業有限公司), a subsidiary of the Group, has recently acquired 100% equity of Baiji Pharmaceutical and obtained its technologically leading nasal spray preparations platform for approximately RMB260 million. This acquisition is a major strategic plan of the Group in the respiratory and critical and severe disease segment. Baiji Pharmaceutical's products will form a product portfolio with the Group's Ryaltris® Compound Nasal Spray to fully meet the medication needs of patients with mild, moderate and severe allergic rhinitis ("**AR**"), and at the same time, it can form a product portfolio with Enerzair® Breezhaler® (indacaterol acetate, glycopyrronium bromide and mometasone furoate powder for inhalation II) and Atectura® Breezhaler® (indacaterol acetate and mometasone furoate powder for inhalation II, III), to fully promote the construction of the Group's inhaled preparation platform in the field of respiratory, further improve the comprehensive strategic plan in the production, research and sales in the direction of inhaled preparations in respiratory and critical and severe disease segment, and consolidate and enhance the Group's comprehensive market competitiveness.

- Acquisition of Equity Interest in Tianjin Tanabe

  In July 2024, the Group reached an acquisition agreement (the "Second Acquisition Agreement") with the minority shareholders of Tianjin Tanabe, together with the first acquisition agreement dated December 2023, Grand Pharma (China) Co., Ltd. ("Grand Pharma (China)"), a subsidiary of the Group, has acquired 100% equity of Tianjin Tanabe for a total consideration of approximately RMB488 million, and completed the registration of equity change. The acquisition of Tianjin Tanabe's remaining equity interest is a further strategic plan of the Group in the cerebro-cardiovascular emergency segment. After the Group fully takes over the business of Tianjin Tanabe, it will conduct a comprehensive integration and upgrade of Tianjin Tanabe's resources to make it a new performance growth point for the Groups cerebro-cardiovascular emergency segment and benefit more patients with chronic diseases. Meanwhile, the Group's significant advantages in the field of Active Pharmaceutical Ingredients can accelerate the manufacturing process of Tianjin Tanabe's core products, further reducing production costs and enhancing product profitability. In addition, the Group can rapidly enter into the chronic disease market through Tianjin Tanabe, which greatly saves the time costs of exploring new markets. It is conducive to quickly establishing market advantages, thereby achieving the Group's full coverage in the field of cerebro-cardiovascular disease treatment, from emergency rescue to chronic disease management, from injection preparations to oral preparations. It has also significantly expanded and improved the product portfolio of the Group's cerebro– cardiovascular emergency segment, and further consolidating and enhancing the Group's comprehensive market competitiveness. In the future, the increasing unmet medical demands in the field of chronic diseases and acute and severe diseases will create huge market opportunities, and will also provide momentum for the sustained and rapid growth of the Group's performance. The Group and MTPC will continue to maintain strategic cooperation, and the Group is committed to building Tianjin Tanabe into a chronic disease platform to bring more safe and effective treatment options to patients in China.

INVESTOR RELATIONS

The Group has been committing to improving its corporate governance to ensure the long-term development. During the period, the Group published annual reports, annual results announcements, and other announcements and circulars on the websites of the Company and the Hong Kong Exchanges and Clearing Limited, and issued voluntary announcements, so as to disclose the latest business developments of the Group to shareholders and investors.

At the same time, the Group actively maintains close communication with investors through various channels, including securities company roadshows, large-scale telephone conferences, one-on-one meetings and other diversified communication methods, to introduce the Group's business situation, development progress and overseas member companies' businesses to investors, and simultaneously releases the latest business updates through different media channels, aiming to build an open, two-way, transparent and sincere communication platform, so that investors can keep abreast of the Group's business progress and development prospects. During the period, the Group actively communicated with the capital market and investors through results announcements and joint arrangement of investor open days with strategic partners, and participated in a number of summits, forums, strategy conferences and special roadshows held by large investment banks and securities companies, attracting hundreds of institutional investors and analysts. Through communication with investors, the Group hopes to listen to more valuable opinions and extensively collect feedback from investors by establishing an active and efficient information and communication mechanism, so as to further enhance its corporate governance.

Other Significant Matters

1. Litigations

With reference to the disclosure in the interim reports of the Company between 2016 to 2024, Tianjin Jingming, an indirect non-wholly owned subsidiary of the Company, is undertaking certain litigations related to a product quality incident, and it is also claiming the original shareholders of Tianjin Jingming for the indemnification of those possible loss suffered by the Company. Up to 30 June 2024, the court has concluded 75 cases. Among the final and effective judgements, Tianjin Jingming has paid the compensation and the related legal charges of approximately RMB40,206,351 in according to the court orders. Given that (1) such product is not the core product of the Group, and (2) according to the terms of the agreement for the acquisition of Tianjin Jingming, the original shareholders of Tianjin Jingming should be responsible for the compensation of such product incident until 30 June 2015, and in April 2021 Grand Pharma (China) had claimed the original shareholders of Tianjin Jingming for the indemnification of those possible loss suffered. According to the final judgment by the court, the original shareholders of Tianjin Jingming should compensate to us approximately RMB39,193,773.9 as the existing compensate and liquidated damages at the point of the judgment. After the execution of the enforcement order from the people's court, Grand Pharma (China) has got properties and cash at approximately RMB7.27 million in aggregate from the original shareholders of Tianjin Jingming, and the outstanding amount is still under enforcement processes. Also Grand Pharma (China) has the right to raise litigation claiming the original shareholders of Tianjin Jingming for the subsequent payment of the indemnification related to such product quality incident made by Tianjin Jingming. Hence, the Directors are of the view that the said incident and the related litigations do not have material impact to the Group.

According to the terms of the agreement for the acquisition of Tianjin Jingming, the vendors have undertaken to the Group that the net profit after tax (the "Actual Profit") from domestic sales (only include the net profit generated from domestic sales and shall not include the profit generated from the sales of irrigating solutions(灌注液)) of Tianjin Jingming for the period commencing on 1 January 2015 and ending on 30 June 2015 shall not be less than RMB5 million (the "Performance Guarantee"). If the above Performance Guarantee cannot be met, the Group can claim for a refund of part of the share transfer consideration in according to the formula set out in the announcement of the Company dated 22 December 2014. The Group raised a litigation against those vendors in related to the said Performance Guarantee, and after the first trial, second trial and retrial from the court, the court granted the final judgement in December 2020. It was concluded that the Group can get back the RMB10 million share transfer consideration (recovered) deposited in the bank account jointly controlled by the Group and the vendors. The vendors should also additionally refund approximately RMB11.20 million share transfer consideration to the Group in according to the terms of the agreement for the acquisition of Tianjin Jingming. Up to now, the case has been applied to the People's Court for enforcement and has been accepted. The Group has followed the judgement from the court and got back the RMB10 million deposited its interest of RMB644,135 in the bank account jointly controlled by the Group and the vendors.

SHARE OPTION SCHEME

As at 30 June 2024 and 2023, the Company did not adopt any share option scheme and no outstanding share options.

No share options were granted or exercised under any share option scheme, and there were no outstanding share options as at 30 June 2024 and 2023.

Share Award Scheme

On 1 September 2021, the Company has adopted the Share Award Scheme ("**Scheme**") in which the Group's employees, directors or consultants will be entitled to participate. Details of the Scheme are set out in the Company's announcement dated 1 September 2021.

Purpose of the Scheme

The purpose of the Scheme is to recognise the contributions of the Selected Participants and provide them with incentives in order to retain them for the continual operation, growth and development of the Group.

Remaining Term of the Scheme

Subject to any early termination as may be determined by the Board pursuant to the Scheme Rules, the Scheme shall be valid and effective for the Scheme Period, i.e. a term of 10 years commencing on the Effective Date. As of 30 June 2024, the Scheme has approximately seven years remaining in force.

The Group has paid to the trust established for the Scheme approximately HK$278.56 million, and including the dividend belongs to the shares acquired previously, the trustee used approximately HK$268.73 million to purchase 47,761,500 shares of the Company ("**Shares**") as part of the trust fund, and such Shares are held by the trustee for the benefit of the eligible participants under the trust and are the total number of award shares available for grant under the Scheme, representing approximately 1.35% of the issued Shares of the Company. Where the trustee has received instructions from the Group to acquire Shares and necessary funds, the trustee shall acquire such number of Shares on-market at the prevailing market price as soon as reasonably practicable.

Save for the aforesaid, as at 30 June 2024, the Group did not grand any awards nor caused to pay the trustee the trust fund for purchase nor subscription of Shares. When any awards were granted later, the number of Shares to be awarded, award price, vesting criteria and vesting schedule of awards of each participant will be subject to the applicable Listing Rules and other applicable regulations by that time, and will inform the participants in the form of an award letter. The Board shall not make any award of Shares which will result in the aggregate number of the Shares awarded by the Board under the Scheme exceeding 5% of the number of issued Shares of the Company as at the adoption date of the Scheme (i.e. 177,478,557 Shares), and the maximum entitlement of each participant under the Scheme in every 12-months in aggregate shall not exceed 1% of the issued Shares as at the adoption date of the Scheme (i.e. 35,495,711 Shares).

Purchase, Sale or Redemption of Shares

During the period ended 30 June 2024, neither the Company nor any of its subsidiaries has purchased, sold or redeemed any of the Company's listed securities.

Employees and Remuneration Policy

As at 30 June 2024, the Group employed about 10,775 staff and workers in Hong Kong and the PRC (31 December 2023: about 10,534). The Group remunerates its employees based on their performance and experience and their remuneration package will be reviewed periodically by the management. Other employee benefits include medical insurance, retirement scheme, appropriate training program and share option scheme.

Competing Interest

No Directors or the management shareholders of the Company (as defined in the Listing Rules) had an interest in a business which competes or may compete with the business of the Group.

Directors' Interests in Transaction, Arrangements or Contracts

No transaction, arrangement or contract of significance to which the Company, or any of its holding company, subsidiaries or fellow subsidiaries was a party, and in which a director of the company had a material interest, subsisted at the end of the year or at any time during the year.

Model Code for Securities Transactions

The Company has adopted the Model Code for Securities Transactions by Directors of Listed Issuers (the "**Model Code**") as set out in Appendix 10 of the Listing Rules as its own code of conduct for securities transactions by directors. Having made specific enquiry of the Company's directors, all directors have confirmed their compliance with all the relevant requirements as set out in the Model Code during the period ended 30 June 2024.

Independence of Independent Non-executive Directors

The Company has received from each independent non-executive director an annual confirmation for independence pursuant to Rule 3.13 of the Listing Rules. The independent non-executive directors have confirmed that they are independent.

Code of Corporate Governance Practices

The Company has complied with all of the code provisions of the Corporate Governance Code and Corporate Governance Report (the "CG Code") as set out in Appendix 14 of the Listing Rules during the year ended 30 June 2024.

Audit Committee

The Company has established the audit committee for the purpose of monitoring the integrity of the financial statements and overseeing the financial reporting process and the internal control system of the Group. Currently, the audit committee is chaired by independent non-executive director Ms. So Tosi Wan, Winnie and other members include the three independent non-executive directors Mr. Hu Yebi, Dr. Pei Geng and Dr. Xing Li Na.

The Group's condensed interim financial statements for the six months ended 30 June 2024 are unaudited but have been reviewed by the audit committee.

Remuneration Committee

The Company has established the remuneration committee to consider the remuneration of all directors and senior management of the Company. Currently, the remuneration committee is chaired by independent non-executive Director Ms. So Tosi Wan, Winnie and other members including the executive Director Dr. Tang Weikun and independent non-executive Director Mr. Hu Yebi.

Nomination Committee

The Company has established the nomination committee to assist the Board in the overall management of the director nomination systems of the Company. Currently, the nomination committee is chaired by independent non-executive Director Ms. So Tosi Wan, Winnie and other members including the executive Director Mr. Zhou Chao and independent non-executive Director Mr. Hu Yebi.

By order of the Board
Grand Pharmaceutical Group Limited
Chairman
Dr. Tang Weikun

Hong Kong, 19 August 2024

As at the date of this announcement, the Board comprises three executive directors, namely, Dr. Tang Weikun, Mr. Zhou Chao and Mr. Yang Guang, and four independent non– executive directors, namely, Ms. So Tosi Wan, Winnie, Dr. Xing Li Na, Dr. Pei Geng and Mr. Hu Yebi.

* *For identification purpose only*

INTERIM RESULTS

The board (the "**Board**") of directors (the "**Directors**") of Grand Pharmaceutical Group Limited (the "**Company**") is pleased to announce the unaudited consolidated interim results for the six months ended 30 June 2024 of the Company and its subsidiaries (collectively the "**Group**"), together with comparative figures for the previous period.

CONDENSED CONSOLIDATED STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME

For the Six Months Ended 30 June 2024

		Six months ended 30 June	
		2024	2023
	Note	***HK$'000***	*HK$'000*
		(Unaudited)	(Unaudited)
Revenue	3	**6,047,236**	5,989,486
Cost of sales		**(2,455,927)**	(2,121,049)
Gross profit		**3,591,309**	3,868,437
Other gains and losses, net		**82,281**	(259,137)
Distribution costs		**(1,611,949)**	(1,637,675)
Administrative expenses		**(606,203)**	(695,890)
Net income from financial assets at fair value through profit or loss		**443,749**	229,658
Impairment provision on interests in associate		**–**	(59,652)
Share of results of associates		**18,816**	(6,811)
Finance costs		**(86,121)**	(113,233)
Profit before tax		**1,831,882**	1,325,697
Income tax expense	4	**(244,175)**	(268,926)
Profit for the period	5	**1,587,707**	1,056,771

	Note	Six months ended 30 June **2024** ***HK$'000*** **(Unaudited)**	 2023 *HK$'000* (Unaudited)
Other comprehensive income/(loss), net of income tax			
Items that will not be reclassified subsequently to profit or loss:			
Fair value gains/(losses) of investment in equity instruments at fair value through other comprehensive income		**(11,570)**	12,769
Share of other comprehensive income of associates		**2,518**	(30,877)
Items that may be reclassified subsequently to profit or loss:			
Exchange difference on translation of foreign operations		**(61,143)**	(119,732)
Other comprehensive (loss)/income for the period, net of income tax		**(70,195)**	(137,840)
Total comprehensive income for the period, net of income tax		**1,517,512**	918,931
Profit/(loss) for the period attributable to:			
– Owners of the Company		**1,557,945**	1,029,354
– Non-controlling interests		**29,762**	27,417
		1,587,707	1,056,771
Total comprehensive profit/(loss) for the period attributable to:			
– Owners of the Company		**1,483,660**	887,173
– Non-controlling interests		**33,852**	31,758
		1,517,512	918,931
Dividend	6	**–**	–
Earnings per share	7		
– Basic and diluted (HK cents)		**44.41**	29.12

CONDENSED CONSOLIDATED STATEMENT OF FINANCIAL POSITION

As at 30 June 2024

	Note	**30 June 2024**	31 December 2023
		HK$'000	*HK$'000*
		(Unaudited)	(Audited)
Non-current assets			
Property, plant and equipment		**3,568,928**	3,533,202
Right-of-use assets		**423,224**	452,451
Investment properties		**171,687**	175,817
Interests in associates		**7,917,828**	7,864,366
Equity instruments at fair value through other income		**345,911**	357,554
Goodwill		**1,112,628**	588,622
Intangible assets		**2,227,860**	1,656,879
Deferred tax assets		**31,101**	25,111
Prepayments		**860,935**	845,179
		16,660,102	15,499,181
Current assets			
Inventories		**1,293,502**	1,388,649
Trade and other receivables	8	**4,519,355**	3,068,059
Amounts due from related companies		**77,703**	52,467
Financial assets at fair value through profit or loss		**1,587,596**	1,134,590
Pledged bank deposits		**29,281**	32,672
Cash and cash equivalents		**734,503**	1,339,708
		8,241,940	7,016,145

	Note	**30 June 2024** ***HK$'000*** **(Unaudited)**	31 December 2023 *HK$'000* (Audited)
Current liabilities			
Trade and other payables	9	**3,517,761**	2,829,697
Contract liabilities	9	**102,929**	198,173
Bank and other borrowings		**2,440,206**	2,317,986
Lease liabilities		**30,355**	34,611
Amounts due to related companies		**23,632**	16,576
Amounts due to immediate holding company		**2,331**	2,331
Financial liabilities at fair value through profit or loss		**72,067**	–
Income tax payable		**210,147**	332,063
		6,399,428	5,731,437
Net current assets		**1,842,512**	1,284,708
Total assets less current liabilities		**18,502,614**	16,783,889
Non-current liabilities			
Bank and other borrowings		**2,024,293**	990,028
Lease liabilities		**47,039**	61,614
Deferred tax liabilities		**289,675**	221,626
Deferred income		**243,620**	240,105
		2,604,627	1,513,373
Net assets		**15,897,987**	15,270,516

	Note	**30 June 2024** ***HK$'000*** **(Unaudited)**	31 December 2023 *HK$'000* (Audited)
Capital and reserves attributable to owners of the Company			
Share capital		**35,496**	35,496
Reserves		**15,682,994**	15,122,222
Equity attributable to owners of the Company		**15,718,490**	15,157,718
Non-controlling interests		**179,497**	112,798
Total equity		**15,897,987**	15,270,516

Notes:

1. BASIS OF PREPARATION

This consolidated interim financial results has been prepared in accordance with the applicable disclosure requirements of the Rules Governing the Listing of Securities on the Main Board of The Stock Exchange of Hong Kong Limited (the "**Listing Rules**").

This consolidated interim financial result contains consolidated financial results and selected explanatory notes. The notes include an explanation of events and transactions that are significant to an understanding of the changes in financial position and performance of the Group since the 2023 annual financial statements. This consolidated interim financial results and notes thereon do not include all of the information required for full set of financial statements prepared in accordance with Hong Kong Financial Reporting Standards ("**HKFRSs**") issued by the Hong Kong Institute of Certified Public Accountants ("**HKICPA**").

The financial information relating to the financial year ended 31 December 2023 included in these consolidated interim financial results as being previously reported information does not constitute the Company's statutory financial statements for that financial year but is derived from those financial statements. Statutory financial statements for the year ended 31 December 2023 are available from the Company's registered office. The auditors have expressed an unqualified opinion on those financial statements in their report dated 19 March 2024.

The accounting policies and methods of computation used in the preparation of this interim results announcement are consistent with those adopted by the Group in the 2023 annual accounts, except for the adoption of new and revised standards with effect from 1 January 2024 as detailed in note 2 below.

2. CHANGES IN ACCOUNTING POLICIES

In the current interim period, the Group has applied the following amendments to HKFRSs issued by the HKICPA for the first time, which are mandatorily effective for the annual periods beginning on or after 1 January 2024 for the preparation of the condensed consolidated financial statements:

Amendments to HKFRS 16	Lease Liability in a Sale and Leaseback
Amendments to HKAS 1	Classification of Liabilities as Current or Non-current and related amendments to Hong Kong Interpretation 5 (2020)
Amendments to HKAS 1	Non-current Liabilities with Covenants
HKAS 7 and HKFRS 7	Supplier Finance Arrangements

The application of the amendments to HKFRSs in the current period has had no material impact on the Group's financial positions and performance for the current and prior years and/or on the disclosures set out in these condensed consolidated financial statements.

3. REVENUE AND SEGMENT INFORMATION

For the six months ended 30 June 2024, the Group is principally engaged in manufacture and sales of pharmaceutical technology products, sales of biotechnology products and nuclear medicine anti-tumor diagnosis and treatment and cerebro-cardiovascular precision interventional diagnosis and treatment technology products. The Board, being the chief operating decision maker of the Group, reviews the operating results of the Group as a whole to make decisions about resource allocation. The operation of the Group constitutes one single reportable segment under HKFRS 8 and accordingly, no separate segment information is prepared.

The Group's revenue represents the invoiced value of goods sold, net of discounts and sales related taxes.

Geographical information

The Group's operations are mainly located in the People's Republic of China (the "**PRC**") (country of domicile) and it also derives revenue from America, Europe and Asia.

Information about the Group's revenue from external customers is presented based on geographical location of the customers and information about the Group's non-current assets is presented based on geographical location of the assets are detailed below:

	Revenue from external customers Six months ended 30 June		Non-current assets	
			30 June	31 December
	2024	2023	**2024**	2023
	HK$'000	*HK$'000*	***HK$'000***	*HK$'000*
	(Unaudited)	(Unaudited)	**(Unaudited)**	(Audited)
The PRC	**5,104,854**	5,098,716	**10,913,102**	9,369,147
America	**403,336**	346,090	**18,570**	317,744
Europe	**275,750**	279,345	**–**	–
Asia other than the PRC	**236,097**	207,392	**104,920**	107,564
Others	**27,199**	57,943	**–**	–
Total	**6,047,236**	5,989,486	**11,036,592**	9,794,455

Note: Non-current assets excluded equity instruments at fair value through other income, deferred tax assets and a part of interests in associates.

Information about major customers

For the six months ended 30 June 2024 and 2023, none of the Group's revenue from a single customer amounted to 10% or more of the Group's total revenue.

Revenue

Disaggregation of revenue from contracts with customers

	Six months ended 30 June	
	2024	2023
	HK$'000	*HK$'000*
	(Unaudited)	(Unaudited)
Type of goods and services		
Manufacture and sales of pharmaceutical technology products	**3,772,943**	3,982,166
Sales of biotechnology products	**1,931,540**	1,858,731
Sales of nuclear medicine anti-tumor diagnosis and treatment and cerebro-cardiovascular precision interventional diagnosis and treatment technology products	**342,753**	148,589
Revenue recognised at point in time	**6,047,236**	5,989,486
Revenue disclosed in segment information		
External customers	**6,047,236**	5,989,486
Timing of revenue recognition		
At a point in time	**6,047,236**	5,989,486

All of the Group's revenue are recognised at point in time upon arrival of carrier designated by the customers, or after the customer's acceptance or upon transfer of control of the goods to customer. All of the Group's revenue is generated in the PRC based on where goods are sold. All revenue contracts are for period of one year or less, as permitted by practical expedient under HKFRS 15, the transaction price allocated to these unsatisfied contacts is not disclosed.

4. INCOME TAX EXPENSES

Taxation in the condensed consolidated statement of profit or loss and other comprehensive income represents:

	Six months ended 30 June	
	2024	2023
	HK$'000	*HK$'000*
	(Unaudited)	(Unaudited)
Current tax:		
PRC Enterprise Income Tax	**242,639**	266,147
Deferred tax	**1,536**	2,779
	244,175	268,926

No provision for Hong Kong profits tax has been made in the consolidated financial statements as the Company did not have any assessable profits subject to Hong Kong Profits tax for both periods. Provision on profits assessable elsewhere has been calculated at the rate of tax prevailing to the countries to which the Group operates, based on existing legislation, interpretations, and practices in respect thereof.

Under the Law of the People's Republic of China on Enterprise Income Tax (the "**EIT Law**") and Implementation Regulation of the EIT Law, the tax rate of the PRC subsidiaries is 25% from 1 January 2008 onwards.

According to the relevant PRC tax regulations, High-New Technology Enterprise (the "**HNTE**") being assessed by relevant government authorities are entitled to a reduced Enterprise Income Tax (the "**EIT**") rate of 15%. Certain subsidiaries are recognised as HNTE and accordingly, are subject to EIT at 15%. The recognition as a HNTE is subject to review on every three years by the relevant government bodies.

5. PROFIT FOR THE PERIOD

	Six months ended 30 June	
	2024	2023
	HK$'000	*HK$'000*
	(Unaudited)	(Unaudited)
Profit before tax is stated after charging:		
Staff costs comprises:		
– Wages and salaries	**877,315**	817,473
– Retirement benefits schemes contributions	**69,857**	62,651
	947,172	880,124
Depreciation of property, plant and equipment	**172,174**	165,093
Depreciation of right-of-use assets	**23,774**	5,491
Amortisation of intangible assets	**53,211**	20,971
Total depreciation and amortisation	**249,159**	191,555
Cost of inventories recognised as an expense	**2,455,927**	2,121,049
Operating leases rentals in respect of land and buildings	**10,327**	4,988
Gain on disposal of property, plant and equipment	**(1,068)**	(1,115)
Research and development costs	**300,677**	355,976

6. INTERIM DIVIDEND

During the six months ended 30 June 2024, the Board declared and paid HK$0.26 per share or approximately HK$922.89 million in aggregate as final dividend for the year ended 31 December 2023 (2023: HK$0.14 per share or approximately HK$496.94 million in aggregate).

No interim dividend has been paid or declared by the Company for the six months ended 30 June 2024 (six months ended 30 June 2023: Nil).

7. EARNINGS PER SHARE

Basic earnings per share is calculated by dividing the profit attributable to equity owners of the Company by the weighted average number of ordinary shares outstanding during the period, excluding ordinary shares purchased by the Group and held as treasury shares.

	Six months ended 30 June	
	2024	2023
	HK$'000	*HK$'000*
	(Unaudited)	(Unaudited)
Earnings:		
Earnings for the purpose of basic earnings per share calculation	**1,557,945**	1,029,354
	'000	*'000*
	(Unaudited)	(Unaudited)
Number of shares:		
Weighted average number of ordinary shares for the purpose of basic earnings per share calculation (Note)	**3,507,754**	3,534,580

Note:

As at 30 June 2024, treasury shares are deducted from total shares in issue for the purpose of calculating earnings per share.

Diluted earnings per share is the same as the basic earnings per share for the six months ended 30 June 2024 and 2023 as there were no potential dilutive ordinary shares in issue.

8. TRADE AND OTHER RECEIVABLES

	30 June	31 December
	2024	2023
	HK$'000	*HK$'000*
	(Unaudited)	(Audited)
Trade receivables, net	**2,583,131**	958,261
Bills receivables	**782,907**	1,057,238
Deposits and prepayments	**910,905**	796,381
Other tax receivables	**78,047**	73,782
Other receivables, net	**164,365**	182,397
	4,519,355	3,068,059

The Group generally allows a credit period of 30 – 180 days to its trade customers. The Group does not hold any collaterals over the trade and other receivables. The following is an aged analysis of trade receivables presented based on the invoice date at the reporting date. The bills receivables were all with maturity within 180 days from the reporting date.

The ageing analysis of the trade receivables is as follows:

	30 June 2024	31 December 2023
	HK$'000	*HK$'000*
	(Unaudited)	(Audited)
Within 90 days	**1,860,792**	753,866
91-180 days	**517,898**	157,602
181-365 days	**204,441**	46,793
	2,583,131	958,261

9. TRADE AND OTHER PAYABLES

	30 June 2024	31 December 2023
	HK$'000	*HK$'000*
	(Unaudited)	(Audited)
Trade payables	**934,772**	720,063
Bills payables	**639,522**	610,348
Accruals and other payables	**1,822,775**	1,427,233
Other tax payables	**120,692**	72,053
	3,517,761	2,829,697
Contract liabilities *(note (a))*	**102,929**	198,173

Notes:

(a) Contract liabilities in relation to sales of finished goods are expected to be settled within one year.

The following is an aged analysis of trade payables presented based on the invoice date at the end of the reporting period:

	30 June 2024	31 December 2023
	HK$'000	*HK$'000*
	(Unaudited)	(Audited)
Within 90 days	**434,463**	361,607
Over 90 days	**500,309**	358,456
	934,772	720,063

10. CONTINGENT LIABILITIES

The Group has no significant contingent liabilities as at 30 June 2024 (2023: Nil).