This summary aims to give you an overview of the information contained in this document. As this is a summary, it does not contain all the information that may be important to you. You should read the entire document carefully before you decide to **[REDACTED]** *in the* **[REDACTED]**. ***In particular, we are a biotechnology company seeking a* [REDACTED] *on the Main Board of the Stock Exchange under Chapter 18A of the Listing Rules on the basis that we are unable to meet the requirements under Rule 8.05(1), (2) or (3) of the Listing Rules.*** *Moreover, there are risks associated with any* **[REDACTED]**. *Some of the particular risks in* **[REDACTED]** *in the* **[REDACTED]** *are set out in "Risk Factors."*

OVERVIEW

Founded in 2016, we are a global leader in integrated circuit biotechnology, developing a next-generation electrochemical detection platform to transform the life sciences tools and diagnostics industry. At the intersection of IC (integrated circuits), BT (biotechnology), and AI (artificial intelligence), we are committed to creating advanced foundational platforms for life science research and clinical applications. Our pioneering solutions include products comprising of molecular diagnostic products and electrochemical long-read next-generation sequencing (EL-NGS) platform and biochips for multi-omics analysis, complemented by extended services built upon our solid technology and platform foundation. As of the Latest Practicable Date, our product pipeline spans one microarray analyzer, two EL-NGS gene sequencers, as well as various compatible test kits. Our Core Product, AxiLona EL-100, is one of the few molecular diagnostic products in China capable of performing electrochemistry-based, multi-target, rapid, low-cost, and integrated detection of biomolecules.

WE MAY NOT BE ABLE TO ULTIMATELY UPGRADE AND MARKET OUR CORE PRODUCT SUCCESSFULLY.

The following chart illustrates our pipeline and summarizes the development status of our selected products and product candidates, all of which are in-house developed, as of the Latest Practicable Date:

Product	Main Application	Market/Regulatory Authority	Category	Development Stage					Expected/Actual Date for Completion of the Current Stage
				Design	Design Verification	Type Testing[1]	Clinical Trial	Approval	
Equipment									
Microarray Analyzer AxiLona EL-100 ★	Nucleic Acid Detection	EU/EU - Designated Certification Organization	A						July 2023
		China/Jiangsu MPA	II						April 2025
		U.S./FDA	II						H1 2026
	Nucleic Acid Detection & Protein Detection	China/Jiangsu MPA	II						H1 2026
		U.S./FDA	II						H1 2026
EL-NGS Gene Sequencer AxiLona AXP-100 ☆	Gene Sequencing	China/NMPA	III						H2 2025
		U.S./FDA	III						H1 2025
EL-NGS Gene Sequencer AxiLona AXP-1000	Gene Sequencing	China/NMPA	III						H2 2026
		U.S./FDA	III						H2 2026
Test Kits									
Test Kit for Specific Genetic Disease	Genetic Disease Detection	China/NMPA	III						H2 2025
Test Kit for Pathogenic Microorganism	Bacteria, viruses and fungi	China/NMPA	III						H1 2026

★ Core Product ☆ Key Product

Abbreviations: H1 means first half; H2 means second half

Notes:

(1) For the FDA registration in the U.S., type testing refers to safety and performance testing.

OUR STRATEGIC FOCUS AND MARKET OPPORTUNITIES

Our strategic focus on developing advanced life science tools, including the innovative molecular diagnostics products and novel EL-NGS platform, is driven by the growing yet unmet market demands for technologies with faster speed, higher accuracy, and greater accessibility.

Innovative Molecular Diagnostics Products

The market potential for molecular diagnostic products is immense, driven by the increasing demand for multiplex, rapid, cost-effective, and integrated detection solutions. The molecular diagnostic solutions currently available or under development primarily utilize non-sequencing testing methods, comprising of fluorescence *in situ* hybridization (FISH), PCR and gene chip. According to CIC, the market of non-sequencing molecular testing in China has reached US$1.6 billion in 2023, which is projected to grow to US$4.6 billion in 2033, representing a CAGR of 10.9%. The global market of non-sequencing molecular testing reached US$8.8 billion in 2023, which is projected to grow to US$22.5 billion in 2033, representing a CAGR of 9.8%.

Traditional polymerase chain reaction (PCR) products, while highly sensitive and specific, are generally limited to detecting a small number of targets simultaneously, lacks scalability, and often requires multiple processing steps and specialized infrastructure. Legacy NGS technologies, on the other hand, can provide comprehensive information across multiple targets but are often cost-prohibitive, time-consuming, and unsuitable for real-time, point-of-care applications. These unmet needs call for the development of innovative products that bridge the gap between gene sequencing and conventional PCR.

By addressing these challenges, we are developing AxiLona EL-100, a molecular diagnostic product based on electrochemical biochip technology. AxiLona EL-100 is one of the few molecular diagnostic product in China capable of performing electrochemistry-based, multi-target, rapid, low-cost, and integrated detection of biomolecules. We have completed the clinical trial for AxiLona EL-100 in March 2025 and have received its registration approval from Jiangsu MPA in April 2025. We also plan to expand the clinical applications of the AxiLona EL-100 by adding protein detection functionality to address the huge market potential of protein testing. According to CIC, the protein testing markets reached RMB51.7 billion and US$37.7 billion in 2023 and are expected to reach RMB94.0 billion and US$62.9 billion in 2033 in China and globally, respectively, each representing a CAGR of 6.2% and 5.2%.

Novel EL-NGS Platform

Gene sequencing has diverse and far-reaching applications. In clinical settings, it can be used for tumor detection, diagnosis of genetic disorders, and detection of infectious diseases. Beyond clinical applications, gene sequencing plays a vital role in scientific research, drug development, agriculture, food safety testing, public health monitoring, and forensic science. This represents a market with tremendous long-term growth potential. According to CIC, the market size of high-throughput gene sequencing reached US$1.2 billion in 2023, and is expected to achieve US$5.3 billion in 2033 in China, representing a CAGR of 16.5%. The global market size of high-throughput gene sequencing reached US$6.7 billion in 2023, and is expected to achieve US$21.9 billion in 2033, representing a CAGR of 12.5%.

However, mainstream next-generation sequencing (NGS) products currently fall short in meeting the demand for long-read sequencing that provides clearer and more comprehensive genetic information. Existing long-read sequencing technologies are hindered by challenges such as high error rates and elevated costs, limiting their widespread adoption and leaving significant unmet needs in both scientific research and clinical applications. At the same time, sequencing cost remains a critical factor determining the accessibility and scalability of sequencing technologies. Affordable and accurate sequencing solutions are necessary to unlock the full potential of genomic applications.

Addressing these challenges requires innovative approaches that combine the advantages of long-read sequencing with cost efficiency and high accuracy, paving the way for a new generation of sequencing technologies tailored to evolving market needs. We are developing AxiLona AXP-100, the world's first EL-NGS gene sequencer. Our AxiLona AXP-100 utilizes cutting-edge semiconductor biochips and integrates technologies across multiple disciplines, including biochemistry, integrated circuits, microfluidics, AI, and bioinformatics, featuring a wide range of advantages including long-read, high accuracy, low cost, and fast sequencing.

Expanding Offerings Based on Foundational Technology

Building upon our foundational technologies, we are actively expanding our product and service portfolio with demonstrated progress across the entire biotechnology value chain. For example, our expertise accumulated through developing foundational technology platforms has enabled us to provide customized small molecule synthesis and high-throughput protein mutagenesis services in the synthetic biology domain. Also, we are advancing development of multi-omics detection solutions for multiplex protein marker detection and protein sequencing to seize huge market opportunities. In addition, our leading electrochemical detection technology allows us to develop non-invasive saliva glucose monitoring systems, which has received validation from an industry-leading research institution that have established formal R&D collaboration with us on such systems. Moreover, we have developed the AxiLona Library Preparation Robotic System that enables automated library preparation for eight samples simultaneously with exceptional precision, through a collaborative partnership with a specialized liquid handling module manufacturer who supplies the robotic components and corresponding consumables. We will continue to advance the automation and portability of our AxiLona Library Preparation Robotic System sequencing workflows.

OUR PRODUCT AND SERVICE PORTFOLIO

Instruments

AxiLona EL-100, our Core Product

AxiLona EL-100 is a molecular diagnostic product based on electrochemical biochip technology. It bridges the gap between PCR instruments and gene sequencers by offering advanced capabilities such as multiplex target detection (up to 54 targets simultaneously), high sensitivity (with a detection limit as low as 100 copies/ml), a rapid testing cycle (<2 hours), and exceptional user-friendly flexibility. These features make it well-suited to both scientific research and clinical applications, distinguishing it from competing molecular diagnostic products.

Appearance of AxiLona EL-100

AxiLona EL-100 was admitted into the Special Registration Procedures for Innovative Class II Medical Devices (commonly known as Green Path) by the Jiangsu MPA in June 2024. We completed its clinical trial in March 2025, and have received the Class II medical device registration certificate for AxiLona EL-100 from Jiangsu MPA in April 2025. We also received the CE marking for AxiLona EL-100 in July 2023.

In our completed clinical trial, our AxiLona EL-100 has demonstrated excellent detection consistency with the control system (a commercially available real-time fluorescence quantitative PCR instrument and respiratory pathogen nucleic acid detection kit). This clinical trial demonstrates that the consistency rate for the positive samples between our AxiLona EL-100 as the test system and the control system was 100.00%, the consistency rate for the negative samples between our AxiLona EL-100 as the test system and the control system was 100.00%, and the overall consistency rate was 100.00%. The Kappa value was 1.0000 (>0.75), indicating excellent detection consistency between the test system and the control system.

As to instrument functionality, in this clinical trial, each positive and negative quality control sample yielded qualified results, with no instances of quality control failure. Also, during instrument operation, the device correctly identified microarray chips, displayed working status, reported and stored detection results, and functioned normally, demonstrating high stability. The instrument maintained continuous operation without abnormal operations. As to convenience of use, the average user rating is 98 (out of 100). Furthermore, no safety-related events occurred. For further details, see "Business — Our Product and Service Portfolio — AxiLona EL-100 — Our Core Product."

Among the existing non-sequencing molecular testing products utilizing multiplex PCR-microarray technologies, a majority of them are based on fluorescence microarray detection and few opine on electrochemical microarray detection which offers higher sensitivity and specificity, greater multiplexing capacity, lower costs, simpler and more compact instrumentation, and a streamlined workflow compared to fluorescence-based systems. As of the Latest Practicable Date, there were only two electrochemical microarray analyzers approved by the NMPA or its local counterparts, including our Core Product AxiLona EL-100. For more information related to the competitive landscape of multiplex PCR microarray analyzers, see "Industry Overview — Overview of Non-sequencing Molecular Testing Market — Competitive Landscape of Non-Sequencing Molecular Testing Instrument and Consumables Market."

AxiLona AXP-100, our Key Product

AxiLona AXP-100 EL-NGS gene sequencer, the world's first EL-NGS platform, achieves an optimal balance across four critical metrics: accuracy (>99%), read length (single-molecule cyclic sequencing with repetitive consensus analysis based on simultaneous synthesis and sequencing), cost (significantly lower cost per Gigabases of data), and speed (up to one million reads concurrently). AxiLona AXP-100 can serve both clinical applications such as diagnoses of cancer and infectious disease and scientific research needs including structural variations study, and single-gene disease investigation.

Appearance of AxiLona AXP-100

We launched the product prototype of AxiLona AXP-100 in 2021, and launched it for research use in 2023. We also plan to actively pursue the clinical application of AxiLona AXP-100. We expect to complete the type testing for AxiLona AXP-100 in the second half of 2025 in China and subsequently initiate a clinical trial for AxiLona AXP-100, after which we will pursue regulatory registration based on the trial outcomes.

The global high-throughput gene sequencing instrument and consumables market is highly concentrated and dominated by a few multinational biotechnology companies. In 2023, the top five players accounted for an aggregate market share of 96.2%, with Illumina alone capturing a significant share of 72.1%, in terms of their respective revenue in the same year. The competitive landscape of China's high-throughput gene sequencing instrument and consumables market shares the same pattern as the global market, with similar dominant players and level of market concentration. In 2023, the top five players collectively secured 96.9% of the market share by revenue in the same year. While Illumina leads both globally and in China, the market share distribution in China is more balanced than that globally due to MGI's significant presence as a prominent local player. As of the Latest Practicable Date, 36 high-throughput gene sequencing instruments by 23 players had been approved by the NMPA or its local counterparts. For more information related to the competitive landscape of high-throughput gene sequencing products, see "Industry Overview — Overview of Gene Sequencing Market — Competitive Landscape of High-Throughput Gene Sequencing Instrument and Consumables Market."

AxiLona AXP-1000

We plan to develop AxiLona AXP-1000, which would feature a higher throughput sequencing chip with ten million nanopore channels, offering nearly ten times the throughput of the AxiLona AXP-100. AxiLona AXP-1000 is currently in the design phase and we expect to complete the design of AxiLona AXP-1000 in the second half of 2026.

Test Kits

Our test kits comprise biochips, reagents and other necessary consumables. We are currently developing test kits for both of our molecular diagnostic products and EL-NGS platform. For example, we have been actively advancing development of specialized test kits for genetic disease detection and pathogenic microorganism detection. We anticipate completing design verification of the genetic disease detection test kits in the second half of 2025, and expect the pathogenic microorganism detection test kits targeting bacteria, viruses, and fungi to complete the design verification in the first half of 2026.

Other Product and Service Offerings

One of our key offerings extended based on our foundational technology is custom synthesis of chemical products, which involves tailored small molecule synthesis, optimization, and enhancement of biological activity. This service has been fully developed, and we have already delivered two batches of products to clients in 2024. Another fully developed service we offer is high-throughput protein mutagenesis services, which typically includes gene synthesis, mutant library construction, protein expression and purification, high-throughput screening of mutants, and sequence validation.

We are also actively advancing service solutions for multi-omics protein detection. We plan to launch our ELP solution for multiplex protein marker detection to extend our core platform capabilities, with high accuracy, rapid turnaround, and cost-efficiency in various applications. This progression synergizes with our parallel development of AXPP solution, a protein sequencing solution based on our EL-NGS platform which enables protein sequencing with maintaining our signature high-throughput, accuracy, cost-performance advantages.

In addition, we have developed a non-invasive saliva glucose monitor system designed for home-use point-of-care testing (POCT). This saliva-based blood glucose monitoring solution enables users to obtain clinical-grade glucose readings through simple oral fluid collection, eliminating traditional blood sampling requirements. Notably, this innovation has already secured a collaboration arrangement with an industry-leading research institution for further development, demonstrating market validation of both our technology and R&D competencies. This exemplifies our multifaceted development strategies through collaborative partnerships.

The AxiLona Library Preparation Robotic System, a next-generation robotic platform for genomic workflow automation, represents our efforts to further expand product portfolio. Its intelligent system combines industrial-grade robotic liquid handling achieving microliter-scale precision. This system enables the simultaneous processing of eight samples with 50% time savings compared to manual methods while maintaining consistent library quality and yield. Leveraging a collaboration with a specialized liquid handling module manufacturer, we are able to incorporate high-quality robotic components and corresponding consumables into this system. We will enjoy the ownership of the patents related to such robotic system developed through the current partnership mode. In the future, we may forge additional partnerships with other industry players or suppliers to further enhance the automation and portability of sequencing workflows of our AxiLona Library Preparation Robotic System.

OUR ADVANCED TECHNOLOGY PLATFORMS

We focus on developing foundational life science technology platforms, with core expertise spanning four key areas: integrated circuit chips, synthetic biology and chemical engineering, electrochemistry and microfluidics, and artificial intelligence.

Cutting-Edge Integrated Circuit Chip Technology

Our groundbreaking semiconductor Bio-CMOS chip technology revolutionizes gene sequencing and molecular diagnostics. Designed using advanced complementary metal oxide semiconductor (CMOS) principles and a 300mm, 65-nm fabrication process, these chips achieve highest density globally through unmatched high-throughput performance with over one million parallel nanopore detection cells per chip (with completed design of next generation chip scaling to tens of millions), reducing sequencing costs significantly. The chip's precision is enhanced by alternating current (AC) impedance detection and lab-on-chip microfluidics, which minimizes noise and boosts accuracy. Furthermore, its compatibility with standard semiconductor processes enables scaled mass production at reduced costs, creating a strong competitive edge. This proprietary technology positions us as a leader in the integration of semiconductor innovation with life sciences applications.

Advanced Synthetic Biology and Chemical Engineering

Our synthetic biology and chemical engineering platform is a cornerstone of our technological capabilities. Equipped with state-of-the-art synthesis and analytical tools, this platform supports high-purity (HPLC main peak area ≥ 98% after purification, MS purity ≥ 95%), customized synthesis of DNA, RNA, phosphonamidites, oligonucleotides, and modified dNTP biomarkers at batch capacities up to 1 mmol. These innovations enhance the signal-to-noise ratio in sequencing applications, improving data quality. Additionally, our AI-powered enzyme engineering capabilities, including microfluidics-based high-throughput protein screening (10^5–10^6 mutants) and rational design systems, have led to the discovery of salt-tolerant, high-performance polymerases that drive the performance of our sequencing products. This comprehensive platform ensures we deliver cutting-edge solutions for the most demanding molecular biology challenges.

Breakthrough Electrochemical and Microfluidic Integration

Our Bio-CMOS chip's integration of electrochemical biosensing and microfluidic precision delivers transformative benefits for gene sequencing and molecular diagnostics. This technology enables ultra-low-cost instruments and test kits, high-density detection arrays with unparalleled sensitivity, accuracy, and speed. By eliminating bulky optical components, our approach paves the way for miniaturized, portable and compact sequencing devices, making advanced diagnostics more accessible. With its fast turnaround times and scalability, our electrochemical and microfluidic platform is setting a new standard for cost-effective and efficient molecular detection solutions, addressing a wide range of applications.

Our AI-Driven Innovation

AI is at the core of our innovation strategy, driving advancements across multiple areas of our platform, including enzyme screening and engineering, product design and optimization, as well as data and bioinformatics analysis.

AI-empowered Enzyme Engineering and Protein Screening and Modification

AI empowers our screening and engineering of enzymes, driving breakthroughs in precision and efficiency. Leveraging our advanced expertise in synthetic biology and protein engineering, AI unlocks immense opportunities for the design and optimization of polymerases, nanopore proteins, and sequencing complexes. Through AI-driven structural simulations and in-depth analyses, we can identify critical sites and refine

enzyme modeling to achieve superior performance. Additionally, AI enables the development of microfluidics-based high-throughput protein mutation systems, further enhancing our capabilities. We have already established targeted gene mutation libraries using microfluidics-based PCR, facilitating protein-directed evolution through Compartmentalized Self-Replication. By integrating high-throughput screening results with AI-powered rational design methodologies, our platform achieves high precision and efficiency in protein screening and modification. These advancements not only enhance the capabilities of our existing platforms but also expand our ability to provide comprehensive solutions in this domain.

Designing Innovative Products with AI

AI revolutionizes the way we design and optimize our products. By harnessing the power of AI, our gene sequencing products can deliver better accuracy in genome sequencing with high sequence validation capabilities. Beyond accuracy, AI empowers us to extend capabilities of our EL-NGS detection platform, driving transformative breakthroughs in our product offerings and business model. With this integration of AI and our EL-NGS platform, we aim to create novel, AI-powered diagnostic solutions capable of delivering highly personalized wellness and longevity analyses and actionable recommendations for consumers, opening new frontiers in sequencing applications and healthcare services.

AI-driven Data Generation and Bioinformatics Analysis

AI plays a crucial role on our platforms in generating high-quality, meaningful data, which serves as the foundation for advanced bioinformatics analysis. By leveraging AI algorithms, we can interpret gene sequences with greater precision and accuracy. Specifically, we employ deep learning algorithms for both base-calling and error correction of consensus sequences during circular sequencing. This ensures that the data used for bioinformatics analysis is both reliable and actionable, significantly enhancing the quality of downstream insights. Moreover, this symbiotic relationship between data and AI continuously strengthens our capabilities — as AI generates better data, it simultaneously improves the models that process it, driving a cycle of refinement and innovation. Overall, AI is embedded into our products, optimizing the data generation process and ensuring seamless integration across our platforms.

OUR COMPETITIVE STRENGTHS

We believe the following competitive strengths have contributed to our success and differentiate us from our competitors.

- We are a global leader in integrated circuit biotechnology, specializing in the development of advanced life science tools, including molecular diagnostics products and electrochemical long-read next-generation sequencing (EL-NGS) platform, offering multi-omics solutions for life science research and clinical applications;

- We focus on developing foundational platforms, with core expertise spanning four key areas: integrated circuit chips, synthetic biology and chemical engineering, electrochemistry and microfluidics, and artificial intelligence. The integration of IC (integrated circuits), BT (biotechnology), and AI (artificial intelligence) creates a uniquely distinctive position for us in the industry;

- Robust and efficient R&D framework dedicated to fostering innovation and driving transformation;

- Integrated manufacturing and commercialization capabilities with an industry-leading global presence; and

- A seasoned management team with interdisciplinary scientific expertise, deep industry insight and a global vision.

See "Business — Competitive Strengths."

OUR STRATEGIES

We intend to pursue the following strategies to further grow our business.

- Accelerate the development of our product portfolio to solidify our leadership in molecular diagnostic products and EL-NGS gene sequencing;

- Expand and strengthen our core technology platform to further solidify our unique integration of IC (integrated circuits), BT (biotechnology), and AI (artificial intelligence);

- Build up domestic and international commercialization capabilities to drive the successive commercialization of our product pipeline; and

- Further enhance manufacturing capacity for gene sequencing and molecular diagnostic products.

See "Business — Strategies."

RISK FACTORS

We believe that there are certain risks involved in our operations, many of which are beyond our control. These risks are set out in "Risk Factors." Some of the major risks we face include:

- Our future growth depends substantially on the success of our product candidates. If we are unable to successfully complete clinical development, obtain regulatory approval, commercialize our product candidates, or keep up with industry and technology developments, or if we experience significant delays in doing so, our business will be materially harmed;

- We may not be successful in developing, enhancing or adapting to new technologies and methodologies;

- We may not be able to develop new or improved products that are competitive in the market, in a timely manner or at all;

- If clinical trials of our product candidates fail to demonstrate positive results to the satisfaction of regulatory authorities, we may incur additional costs or experience delays in completing, or ultimately be unable to complete, the development and commercialization of our product candidates;

- We have limited experience in marketing and sales of our products. There can be no assurance that we will be able to successfully commercialize our products, and as a result, our revenue and profitability could be materially and adversely affected;

- Our success depends on our ability to provide reliable, high-quality products and services and to rapidly evolve to meet our customers' needs. If our

products or services, or similar molecular diagnostics and gene sequencing services and products available in the market in general, do not meet the expectations of customers, our results of operations, reputation and business could suffer;

- Failure to achieve broad market acceptance or maintain a good reputation necessary for our products would have a material adverse impact on our results of operations and profitability;

- The manufacture process of our products is highly complex and subject to strict quality controls. Our business could suffer if our products are not produced in compliance with all the applicable quality standards;

- If we fail to expand our commercial manufacturing capacity after we launch our future approved products, or if our manufacture capacity fails to meet the market demand, our business prospects could be materially and adversely affected; and

- We depend on third-party suppliers to supply raw materials to be used in manufacture our products. If these suppliers can no longer provide satisfactory products with high quality to us on commercially reasonable terms, our business, financial condition and results of operations could be adversely affected.

RESEARCH AND DEVELOPMENT

At the core of our competitive edge lies our robust in-house R&D capabilities, underpinned by a sophisticated R&D infrastructure that drives continuous advancement and iteration of our product portfolio. As a life sciences company founded in the U.S. and grown in China, we have been actively pursuing a global strategy. Over the years, we have strategically established four R&D centers across Silicon Valley, Shenzhen, Tianjin, and Wuxi, each equipped with cutting-edge experimental facilities to fuel our innovative R&D endeavors. Our sophisticated and stable R&D team comprise of 81 members with multidisciplinary backgrounds and industry know-how across semiconductor, biotechnology and artificial intelligence, approximately 60% of whom hold doctorate or master's degrees. Globally, our core R&D personnel have secured nearly a hundred issued patents, with several more under application.

Our ability to compete depends largely on our continuing commitment to research and development, and our capabilities to create novel technologies, design new products, and enhance existing products. We have comprehensive R&D capabilities, with core technologies developed in-house, allowing us to cover subsequent product development process with low external dependency. In 2023 and 2024, we incurred research and development expenses of US$15.3 million and US$11.4 million, respectively. For details, please refer to "Financial Information — Description of Selected Components of Consolidated Statements of Profit or Loss and Other Comprehensive Income — Research and Development Expenses."

Our comprehensive proprietary portfolio spans instruments, test kits and services. As of the Latest Practicable Date, we have one product approved for registration by Jiangsu MPA, namely our Core Product, AxiLona EL-100. We are actively exerting substantial R&D efforts to unleash the clinical application potential of our pipeline products, such as the ongoing clinical trial and continuous upgrade of existing versions. Also, we have been engaging in and will continue to focus on R&D for our RUO products to expand our research-use customer base and increase customer stickiness globally. Further, we focus on developing foundational life science technology platforms, with core expertise spanning four key areas: integrated circuit chips, synthetic biology and chemical engineering, electrochemistry and microfluidics, and artificial intelligence. For details, please refer to "Business — Research and Development."

MANUFACTURING

We manufacture, assemble and test our products mainly at our 4,100 square-meter manufacturing center in Wuxi. We had three production lines, with an annual designed production capacity of 1,000 units of instruments and 100 thousand sets of test kits. Our manufacturing facility is designed to be in compliance with GMP requirements of China and applicable regulations in the U.S. and the EU. We are also accredited in accordance with the ISO 13485 quality standard. We have received the medical device production permit for AxiLona EL-100 from Jiangsu MPA in April 2025. As of the Latest Practicable Date, we had a manufacturing team of 18 employees. Leveraging our own production lines and in-house manufacturing personnel, we do not rely on any imported products or external CMOs. We plan to build a new production line for our instruments and test kits to expand our manufacturing capability to capture the growing market demand.

We have a strong and specialized manufacturing team, well positioned to bring proprietary technologies or processes into GMP production. Our manufacturing team has abundant experience in medical device manufacturing and quality control. As we progress the commercialization of our Core Product, we will further expand our manufacturing team to meet the anticipated increase in the sales of our Core Product along with relevant test kits. We provide regular training to our manufacturing personnel to ensure that they possess the skill sets and techniques required in the relevant manufacturing process and comply with our quality control requirements as well as applicable laws and regulations. For details, please refer to "Business — Manufacturing."

SALES AND MARKETING

During the Track Record Period, we mainly sell our products directly to our customers and we expect direct sales to remain an important part of our distribution approach in the foreseeable future. To expand our commercial footprint both within our domestic market and overseas market in the future and penetrate the in-hospital market in anticipation of our products' expanded clinical applications, we have started to engage distributors for the sales of our products. We believe collaboration with distributors enables us to access a broader customer base and will benefit our sales.

We primarily rely on our in-house team to formulate and execute marketing strategies. While we do harness the resources of a small number of distributors to promote our brand and products and to support our in-person events locally, our distributors take on more administrative and supportive roles in our overall marketing strategies. We also engage in extensive academic marketing activities with KOLs, physicians and researchers to promote our brand and establish a quality end-user base.

We formulate and implement a reasonable pricing strategy for our marketed products to stay competitive and profitable. We primarily sold our products with prices in a fixed range during the Track Record Period. We take into account a number of factors in determining price for our products, which primarily include our R&D, production and marketing costs and expenses, the perceived value of products and services, our market share, and the competitive landscape. For details, please refer to "Business — Sales and Marketing."

OUR CUSTOMERS

During the Track Record Period, our customers were primarily research institutes and hospitals. We did not generate any revenue in 2023. In 2024, the aggregate sales to our five largest customers accounted for 98.1% of our total revenue, and sales to our largest customer accounted for 24.8% of our total revenue.

To the best knowledge of our Directors, none of our Directors, their respective associates or any of our Shareholders holding more than 5% of our issued share capital immediately following the completion of the [**REDACTED**] had an interest in any of our customers during the Track Record Period. For details, please refer to "Business — Our Customers."

OUR SUPPLIERS

During the Track Record Period, our suppliers mainly comprised of service providers across scientific research, facility operations, and professional technical support, and raw material suppliers. In 2023 and 2024, purchases from our five largest suppliers in aggregate accounted for 28.4% and 33.0% of our total purchases (including value added tax), respectively, and purchases from our largest supplier accounted for 6.9% and 10.8% of our total purchases for the same periods (including value added tax), respectively.

To the best knowledge of our Directors, none of our Directors, their respective associates or any of our Shareholders holding more than 5% of our issued share capital immediately following the completion of the [**REDACTED**] had an interest in any of our suppliers during the Track Record Period. For details, please refer to "Business — Our Suppliers and Raw Materials."

INTELLECTUAL PROPERTY RIGHTS

We have built an extensive intellectual property portfolio in China and overseas to protect our technologies, inventions and know-how. As of the Latest Practicable Date, we had 53 issued patents and 39 patent applications in China, the U.S. and other jurisdictions. We also have four layout-design of integrated circuits registered in China. Specifically, in relation to our Core Product, AxiLona EL-100, we had five issued patents and eight patent applications as of the Latest Practicable Date. We believe there is no material legal impediment to obtain the approvals for these pending patents. As of the Latest Practicable Date, we had registered trademarks for our Company and our corporate logo in China and are seeking trademark protection for our Company and our corporate logo in the countries where available and appropriate.

During the Track Record Period and up to the Latest Practicable Date, we were not involved in any material proceedings regarding intellectual property rights infringement claims against us or initiated by us. For details, please refer to "Business — Intellectual Property Rights."

OUR SINGLE LARGEST SHAREHOLDER

Immediately following the completion of the [**REDACTED**] (assuming that the [**REDACTED**] is not exercised and without taking into account any Shares which may be allotted and issued under the Equity Incentive Plan), Dr. Tian will hold 55,233,000 Shares, representing approximately [**REDACTED**]% of the total issued share capital of our Company. Accordingly, Dr. Tian will be our single largest Shareholder after the [**REDACTED**]. See "Relationship with Our Single Largest Shareholder" for details.

OUR [REDACTED] INVESTORS

Since the establishment of our Group, we have received [**REDACTED**] Investments from a number of [**REDACTED**] Investors. Our [**REDACTED**] Investors include certain Sophisticated Investors, namely AZ-CICC and YF Capital. For the principal terms of the [**REDACTED**] Investments and background information of the [**REDACTED**] Investors, see "History, Reorganization and Corporate Structure."

EQUITY INCENTIVE PLAN

We adopted the Equity Incentive Plan. For details including a summary of the principal terms of the Equity Incentive Plan and the dilution impact resulting from full exercise of all outstanding share options granted thereunder, see "Appendix IV — Statutory and General Information — D. Equity Incentive Plan."

SUMMARY OF HISTORICAL FINANCIAL INFORMATION

The following tables set forth summary financial data from our consolidated financial information for the Track Record Period, extracted from the Accountants' Report set out in Appendix I to this document. The summary consolidated financial data set forth below should be read together with, and is qualified in its entirety by reference to, the Accountants' Report set out in Appendix I to this document, including the related notes. Our consolidated financial information was prepared in accordance with HKFRS Accounting Standards.

Summary of Consolidated Statements of Profit or Loss

The following table sets forth a summary of our consolidated statements of profit or loss and other comprehensive income for the years indicated.

	For the Year Ended December 31,	
	2023	**2024**
	(US$ in thousands)	
Revenue	**–**	**479**
Cost of sales	–	(175)
Gross profit	**–**	**304**
Other income	1,935	2,063
Other gains and losses	(1,477)	(7,805)
Research and development expenses	(15,291)	(11,412)
Administrative expenses	(7,919)	(6,526)
Finance costs	(104)	(90)
Loss before tax	**(22,856)**	**(23,466)**
Income tax expense	–	–
Loss for the year	**(22,856)**	**(23,466)**
Other comprehensive expense (item that may be reclassified subsequently to profit or loss)		
Exchange differences arising on translation of foreign operations	(82)	(187)
Total comprehensive loss for the year	**(22,938)**	**(23,653)**

Non-HKFRS Measure

To supplement our consolidated statements of profit or loss and other comprehensive income which are presented in accordance with HKFRS Accounting Standards, we also use adjusted loss as a non-HKFRS measure, which is not required by, or presented in accordance with, HKFRS Accounting Standards. We believe that the presentation of the non-HKFRS measure when shown in conjunction with the corresponding HKFRS measures provides useful information to management and [**REDACTED**] in facilitating a comparison of our operating performance from year to year. In particular, the non-HKFRS measure eliminates impact of certain expenses, including loss from changes in fair value of financial liabilities at FVTPL and share-based payments. Such non-HKFRS measure allows [**REDACTED**] to consider metrics used by our management in evaluating our performance.

We define adjusted loss (non-HKFRS measure) as loss for the year adjusted by adding back (i) loss from changes in fair value of financial liabilities at FVTPL, and (ii) share-based payments. Loss from changes in fair value of financial liabilities at FVTPL represents the fair value changes of the Series A-1 Preferred Shares and Series B Preferred Shares held by our [**REDACTED**] Investors, which is non-cash in nature. Share-based payments represent expenses arising from our grant of share options to eligible individuals, which are also non-cash in nature. The use of the non-HKFRS measure has limitations as an analytical tool, and you should not consider it in isolation from, or as a substitute for, or superior to, analysis of our results of operations or financial condition as reported under HKFRS Accounting Standards. In addition, the non-HKFRS financial measure may be defined differently from similar terms used by other companies and therefore may not be comparable to similar measures presented by other companies.

The following table reconciles our adjusted loss (non-HKFRS measure) for the year presented to the most directly comparable financial measure calculated and presented in accordance with HKFRS Accounting Standards, which is loss for the year:

	For the Year Ended December 31,	
	2023	**2024**
	(US$ in thousands)	
Loss for the year	**(22,856)**	**(23,466)**
Add:		
Loss from changes in fair value of financial liabilities at FVTPL	2,070	7,610
Share-based payments	1,110	1,198
Adjusted loss (non-HKFRS measure) for the year	**(19,676)**	**(14,658)**

In 2023 and 2024, we recorded revenue of nil and US$479 thousand, respectively, which was derived primarily from our sales of AxiLona AXP-100 for research use, and to a lesser extent, from provision of molecular diagnostics solutions to third-party customers. We had not generated revenue from commercial sales of our products and product candidates and were loss-making during the Track Record Period. Our net losses remained relatively stable at US$22.9 million and US$23.5 million in 2023 and 2024, respectively. Substantially all of our net losses resulted from research and development expenses and administrative expenses. For a detailed discussion of our net losses during the Track Record Period, see "Financial Information — Description of Selected Components of Consolidated Statements of Profit or Loss and Other Comprehensive Income."

Summary of Consolidated Statements of Financial Position

The following table sets forth summary data from our consolidated statements of financial position as of the dates indicated.

	As of December 31,	
	2023	**2024**
	(US$ in thousands)	
Total non-current assets	6,046	5,480
Total current assets	55,980	39,707
Total current liabilities	94,053	102,745
Net current liabilities	38,073	63,038
Total assets less current liabilities	(32,027)	(57,558)
Total non-current liabilities	1,292	716
Net liabilities	33,319	58,274

Our net current liabilities increased from US$38.1 million as of December 31, 2023 to US$63.0 million as of December 31, 2024, primarily attributable to (i) a decrease of US$17.4 million in bank balances and cash, mainly due to the cash outflows to support our continued research and development activities, and (ii) an increase of US$7.6 million in financial liabilities at FVTPL in relation to the fair value change of Series A-1 Preferred Shares and Series B Preferred Shares.

Our net liabilities increased from US$33.3 million as of December 31, 2023 to US$58.3 million as of December 31, 2024, primarily attributable to our total comprehensive loss for the year of US$23.7 million.

For details of our financial position, see "Financial Information — Discussion of Certain Selected Items from the Consolidated Statements of Financial Position."

Summary of Consolidated Statement of Cash Flows

The following table sets forth our selected cash flow data for the years indicated.

	For the Year Ended December 31,	
	2023	**2024**
	(US$ in thousands)	
Operating cash flows before movements in working capital	(19,069)	(13,991)
Changes in working capital	2,341	(1,013)
Net cash used in operating activities	(16,728)	(15,004)
Net cash generated from investing activities	16,431	422
Net cash used in financing activities	(246)	(2,607)
Net decrease in cash and cash equivalents	(543)	(17,189)
Cash and cash equivalents at beginning of the year	55,552	54,260
Effect of foreign exchange rate changes	(749)	(161)
Cash and cash equivalents at end of the year	**54,260**	**36,910**

For details of our cash flows, see "Financial Information — Liquidity and Capital Resources — Cash Flows."

Our primary use of cash during the Track Record Period was to fund our research and development activities. We recorded net cash used in operating activities of US$16.7 million and US$15.0 million in 2023 and 2024, respectively. During the Track Record Period, we primarily funded our working capital requirements through equity and debt financings. Our management closely monitors use of cash and cash equivalents and strives to maintain a healthy liquidity for our operations. Going forward, we expect our liquidity requirements will be satisfied by a combination of existing cash and cash equivalents, bank loans, [**REDACTED**] from the [**REDACTED**], as well as revenue derived from sales of our successfully commercialized products. With the continuing expansion of our business, we may require further funding through public or private offerings, debt financing, or other sources.

Our Directors are of the opinion that, taking into account the financial resources available to us, including bank balances and cash, unutilized bank facilities and the estimated [**REDACTED**] from the [**REDACTED**], and considering our cash burn rate, we have available sufficient working capital to cover at least 125% of our costs, including research and development expenses, administrative expenses and other operating costs, for at least the next 12 months from the date of this document.

Our cash burn rate refers to the average monthly amount of net cash used in operating activities, capital expenditures and lease payments. We had bank balances and cash of US$36.9 million as of December 31, 2024. We estimate that we will receive [**REDACTED**] of approximately HK$[**REDACTED**] million in the [**REDACTED**], assuming an [**REDACTED**] of HK$[**REDACTED**] per Share, being the low end of the indicative [**REDACTED**] range. Assuming an average cash burn rate going forward of 1.5 times the level in 2024, we estimate that our bank balances and cash as of December 31, 2024 will be able to maintain our financial viability for [**REDACTED**] months, or, if we take into account the estimated [**REDACTED**] from the [**REDACTED**], [**REDACTED**] months. We will continue to monitor our cash flows from operations closely and expect to raise our next round of financing no earlier than six months after the completion of the [**REDACTED**].

For more information related to our working capital sufficiency, see "Financial Information — Working Capital Confirmation."

Key Financial Ratios

The following table sets forth our key financial ratios as of the dates indicated:

	As of December 31,	
	2023	**2024**
Current ratio [(1)]	0.6	0.4

Note:

(1) Current ratio is calculated as current assets divided by current liabilities as of the end of the year.

For details, see "Financial Information — Key Financial Ratios."

DIVIDENDS

We did not declare or pay any dividend during the Track Record Period. We currently intend to retain all available funds and earnings, if any, to fund the development and expansion of our business and we do not anticipate paying any cash dividends in the foreseeable future. Our Board of Directors has complete discretion as to whether to distribute dividends, subject to certain restrictions under Cayman Islands law. Even if our Board of Directors decides to declare and pay dividends, the timing, amount and form of future dividends, if any, will depend on our future results of operations and cash flow, our capital requirements and surplus, the amount of distributions, if any, received by us from our subsidiaries, our financial condition, contractual restrictions and other factors deemed relevant by our Board of Directors.

As advised by our legal advisor as to Cayman Islands laws, notwithstanding that the Company may have accumulated losses, the Company may declare dividend (a) out of profits of the Company if the Company has sufficient profits, unless such is contrary to the accounting principles adopted by the Company or (b) out of the share premium of the Company if following the date on which the dividend is proposed to be paid, the Company is able to pay its debts as they fall due in the ordinary course of business. In determining whether to declare a dividend, our Board will need to be satisfied that the declaration of dividend is in the best interest of the Company and may make provision for losses. [**REDACTED**] should not [**REDACTED**] our Shares with the expectation of receiving cash dividends.

RECENT DEVELOPMENTS

Since the end of the Track Record Period, we have been consistently advancing our product pipeline and developing our business. In particular, we completed the clinical trial of our Core Product AxiLona EL-100 in March 2025, and have received the registration approval for AxiLona EL-100 from the Jiangsu MPA in April 2025.

We expect that we will continue to record net losses for the year ending December 31, 2025, primarily because (i) we expect to incur significant research and development expenses as we continue to advance and expand our product pipeline and enhance our proprietary technology platforms; and (ii) we expect to incur [**REDACTED**] expenses in connection with our proposed [**REDACTED**].

NO MATERIAL ADVERSE CHANGE

Our Directors confirm that, as of the date of this document, there has been no material adverse change in our financial and trading positions or prospects since December 31, 2024, being the date on which our latest unaudited consolidated financial statements were prepared, and there has been no event since December 31, 2024 which would materially affect the information in the Accountants' Report set out in Appendix I to this document.

APPLICATION FOR [REDACTED] OF THE SHARES ON THE STOCK EXCHANGE

We have applied to the Stock Exchange for the [**REDACTED**] of, and permission to [**REDACTED**], the Shares in issue (including the Shares outstanding and to be converted from the Preferred Shares) and to be issued pursuant to (i) the [**REDACTED**], (ii) the exercise of the [**REDACTED**], and (iii) the exercise of share options granted under the Equity Incentive Plan.

[REDACTED]

[REDACTED] EXPENSE

[**REDACTED**] expenses to be borne by us are estimated to be approximately HK$[**REDACTED**] million (including [**REDACTED**], assuming an [**REDACTED**] of HK$[**REDACTED**] per Share, being the mid-point of the indicative [**REDACTED**] range of HK$[**REDACTED**] to HK$[**REDACTED**] per Share), which represent [**REDACTED**]% of the gross [**REDACTED**] from the [**REDACTED**], assuming no Shares are issued pursuant to the [**REDACTED**]. The above [**REDACTED**] expenses are comprised of (i) [**REDACTED**]-related expenses of HK$[**REDACTED**] million, and (ii) non-[**REDACTED**]-related expenses of HK$[**REDACTED**] million, including (a) the legal advisors and the reporting accountants expenses of HK$[**REDACTED**] million, and (b) other fees and expenses of HK$[**REDACTED**] million. During the Track Record Period, we did not incur any [**REDACTED**] expenses. We expect to incur all [**REDACTED**] expenses after the Track Record Period, of which approximately HK$[**REDACTED**] million is expected to be charged to our consolidated statements of profit or loss, and approximately HK$[**REDACTED**] million is attributable to the issue of Shares and will be deducted from equity upon [**REDACTED**]. The [**REDACTED**] expenses above are the latest practicable estimate for reference only, and the actual amount may differ from this estimate.

USE OF [REDACTED]

We estimate that the aggregate [**REDACTED**] to our Company from the [**REDACTED**] will be approximately HK$[**REDACTED**] million, after deducting [**REDACTED**], fees and other estimated expenses in connection with the [**REDACTED**] paid and payable by us taking into account any additional discretionary incentive fee and assuming that the [**REDACTED**] is not exercised and an [**REDACTED**] of HK$[**REDACTED**] per Share, being the mid-point of the indicative [**REDACTED**] range of HK$[**REDACTED**] to HK$[**REDACTED**] per Share.

We intend to apply such [**REDACTED**] from the [**REDACTED**] for the following purposes:

- approximately [**REDACTED**]%, or HK$[**REDACTED**] million, will be used for further development, commercialization and manufacturing of AxiLona EL-100, our Core Product;

- approximately [**REDACTED**]%, or HK$[**REDACTED**] million, will be used for further development, commercialization and manufacturing of AxiLona AXP-100;

- approximately [**REDACTED**]%, or HK$[**REDACTED**] million, will be used for the development of AxiLona AXP-1000 and our other pipeline products. We plan to complete the design of AxiLona AXP-1000 in the second half of 2026, featuring a higher throughput sequencing chip with ten million nanopore channels, offering nearly ten times the throughput of the AxiLona AXP-100;

- approximately [**REDACTED**]%, or HK$[**REDACTED**] million, will be used to expand and strengthen our core technology platform to further solidify our unique integration of integrated circuits (IC), biotechnology (BT), and artificial intelligence (AI); and

- approximately [**REDACTED**]%, or HK$[**REDACTED**] million, will be used for working capital and general corporate purposes.

See "Future Plans and Use of [**REDACTED**]" for further details.