OVERVIEW

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 and innovative technology and platform foundation.

Our Strategic Focus

Our strategic focus on developing advanced life science tools, including 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 product 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 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 is 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 Strategic Pipeline

The pipeline chart below summarizes the development status of our product candidates, all of which are in-house developed.

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.

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.

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.

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 consumer-focused non-invasive saliva glucose monitor designed 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 R&D, Manufacturing and Commercialization Capabilities

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 over a hundred issued patents, with several more under application.

We have established the first GMP-compliant manufacturing facility in Wuxi, Jiangsu Province, which spans a site area of approximately 4,100 sq.m. This facility is designed to support the demands for our instruments and their exclusively compatible test kits. We have received the medical device production permit for AxiLona EL-100 from Jiangsu MPA in April 2025. We are also accelerating our path to commercialization and have already developed a network of partners and clients who are trialing our product candidates. These initiatives are anticipated to raise awareness about our products, paving the way for future market acceptance once they commercially scale up.

COMPETITIVE STRENGTHS

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 are a global leader in integrated circuit biotechnology, at the forefront of developing cutting-edge tools that drive innovation in life science sector. We specialize in molecular diagnostics product designed to provide rapid, reliable results in a wide range of clinical settings. Our portfolio includes EL-NGS platform, which delivers unparalleled accuracy and scalability for comprehensive genomic analysis. Additionally, our portfolio also includes EL-NGS platform, which delivers unparalleled accuracy and scalability for comprehensive genomic analysis.. We are also actively expanding the boundaries of innovation in other products and services based on our foundational technology. Aiming to provide integrated multi-omics solutions, we are committed to empowering researchers and clinicians to address complex challenges, accelerate breakthroughs, and advance diverse applications in life sciences and clinical practice.

Molecular diagnostics products

The non-sequencing molecular testing market demands innovation for multiplex, rapid, cost-effective, and integrated detection solutions to address critical unmet needs. Our Core Product AxiLona EL-100 directly answers this market call. Compared to traditional molecular diagnostic technologies such as fluorescence PCR, our AxiLona EL-100 exhibits distinct technical advantages that advanced biochip technology presents, including higher-throughput gene expression profiling, superior genome-wide screening and enhanced cost-effectiveness for whole genome studies. Our AxiLona EL-100 strategically bridges the gap between traditional PCR instruments and gene sequencers, delivering strong multiplex detection capability (up to 54 simultaneous targets), high

sensitivity (detection limit as low as 100 copies/ml), accelerated testing cycles (under 2 hours), and superior operational flexibility. This comprehensive performance profile positions our Core Product optimally for both research environments and clinical applications, establishing clear differentiation in the competitive landscape.

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. In this 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). The consistency rate for the positive samples between AxiLona EL-100 and the control system was 100.00%, the consistency rate for the negative samples between AxiLona EL-100 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. It has also demonstrated high quality control, stability and user convenience in this clinical trial, with no safety-related events reported. We have received the registration approval for AxiLona EL-100 from the Jiangsu MPA in April 2025. We also received the CE marking for AxiLona EL-100 in July 2023.

EL-NGS platform

Despite significant development in the field, current mainstream next-generation sequencing (NGS) platforms exhibit substantial limitations in addressing the growing requirement for long-read sequencing capabilities — an evolving technology that delivers more comprehensive and clearer genetic insights. However, existing long-read sequencing technologies face persistent challenges in error reduction and cost efficiency that have limited their wide use. Our AxiLona AXP-100 has emerged as the world's first EL-NGS gene sequencer, combining advanced semiconductor biochips with technologies across different scientific fields to solve the industry challenges. We have launched AxiLona AXP-100 for research use in 2023 and will actively pursue its clinical development. It achieves an optimal balance across four critical metrics: read length, accuracy, cost and speed.

- **Groundbreaking long-read sequencing with high precision.** By introducing the groundbreaking EL-NGS using proprietary polymerases and molecular tags, AxiLona AXP-100 enables simultaneous synthesis and sequencing. This technology allows for single-molecule cyclic sequencing with repetitive consensus analysis, ensuring long reads, high precision, and real-time sequencing and data output.

- **Superior efficiency with low costs enabled by leading semiconductor technology.** Leveraging cutting-edge semiconductor technology, we have developed an ultra-low-cost yet effective sequencing platform. Our proprietary Bio-CMOS sequencing chip is the globally first 300mm, 65nm process Bio-CMOS chip with one million sequencing channels. With over one million parallel nanopore detection units per chip with AC impedance detection design, this ultra-high throughput design significantly reduces

sequencing costs, creating a sequencing platform with unprecedented affordability while providing enhanced stability and faster data generation.

- **AI algorithms empower efficient bioinformatics analysis**. AxiLona AXP-100 integrates AI algorithms within the device, enabling it to directly generate high-quality data without the need for additional AI tools. These AI algorithms facilitate base calling and cyclic consensus sequence correction, enhancing the efficiency and accuracy of sequencing.

- **Reduced production costs.** We have successfully achieved lower production costs for Bio-CMOS sequencing chip with the highest sequencing channel density. We aim to achieve its large-scale production to further reduce the product costs and enable accessible advanced applications such as protein sequencing.

Extended product and service offerings

Our leading technology platforms allow us to broaden our product and service portfolio across the biotechnology value chain. For services, highlights include customized small molecule synthesis and high-throughput protein mutagenesis in synthetic biology, and advancements in multi-omics protein detection solutions. Also, we are actively exploring development of other innovative products such as development of non-invasive saliva glucose monitor and AxiLona Library Preparation Robotic System for automated, high-precision sample processing.

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

By seamlessly integrating IC (integrated circuits), BT (biotechnology), and AI (artificial intelligence), we have established a uniquely distinctive position in the industry. These diverse yet complementary areas of expertise enable us to create innovative and robust technological solutions that address complex challenges. Building on this foundation, we continuously leverage these advanced technologies to develop a growing portfolio of innovative products and expand service offerings.

Integrated Circuit Chip Technology

Our semiconductor biochips are the core components of gene sequencers and other molecular diagnostic products. The technological leadership of these chips further drives the high throughput, low cost, and high accuracy of sequencing and molecular diagnostics.

According to CIC, we are among the few companies in the molecular testing industry with a semiconductor R&D team, who possess extensive experience in advanced semiconductor process design and manufacturing focused on integration with bio liquids. Our chips are engineered based on traditional CMOS principles to enable multi-array scanning, the generation and reading of various electrochemical signals with a very low noise, and enabling high-speed analog-to-digital conversion on a large scale but using lab-on-chip microfluidics. By adopting an AC-based design, the size of each working cell is much smaller than that of direct current (DC)-based designs, allowing for higher energy integration on a single chip and making production easier using existing integrated circuit processes.

We have successfully developed the worlds' first 300mm, 65nm process Bio-CMOS chip with over one million parallel nanopore detection cells per chip. It has successfully undergone mass production and device validation, significantly reducing detection costs. Bio-CMOS chip is currently used in AxiLona platform, and is expected to be included in our multiple clinical and pre-clinical stage product candidates.

Synthetic Biology and Chemical Engineering Technology

We have developed a proprietary synthetic platform, which enables the synthesis and modification of sequencing-related molecules, and ensures the stable delivery of high-quality products. The synthesis platform is equipped with comprehensive synthesis and analytical instruments, capable of performing small molecule building block synthesis, post-synthetic modification, preparation and purification, as well as analytical testing. This platform supports diverse synthesis applications, including standard DNA/RNA, modified DNA/RNA, modified nucleobases, and customized categories. It offers high synthesis capacity (maximum single-run synthesis up to 1 mmol) and high product purity (HPLC main peak area ≥ 98% after purification, MS purity ≥ 95%).

Furthermore, combining high-throughput protein screening based on microfluidics with AI-powered rational protein design, we have established a foundational enzyme engineering technology platform. Our high-throughput protein screening platform can efficiently screen approximately 10^5 to 10^6 random mutants, while AI-driven rational protein design enables sequence and key site analysis. The combination of these approaches forms our foundational enzyme engineering technology platform, which can be applied to scenarios such as protein function modification to enhance biological performance, or to synthetic biology for increasing the yield of bio-based compounds.

Electrochemistry and Microfluidics Technology

Our biochips combine advanced electrochemical biosensor technology with precision microfluidic systems, significantly improving detection efficiency, lowering costs, and enabling compact, portable designs. These technologies are seamlessly integrated into our gene sequencers and molecular diagnostic products. Compared to optical signal detection methods, electrochemical detection delivers substantial cost advantages. Furthermore, the AC-based design minimizes equipment size and further reduces costs. Beyond gene sequencing, electrochemical and microfluidic technologies are adaptable to a variety of applications, including non-invasive saliva glucose monitoring and rapid multiplexed biomarkers detection.

AI-Driven Innovation

Our AI capabilities enhance our ability in synthetic technology and chemical engineering. For example, AI empowers our design and optimization of polymerases, nanopore proteins, and sequencing complexes. Utilizing AI-driven structural simulations and detailed analyses, we can identify key sites and improve enzyme modeling to deliver superior performance. Moreover, AI facilitates our development of microfluidics-based high-throughput protein mutation systems. We have also successfully established targeted gene mutation libraries through microfluidics-based PCR, enabling protein-directed evolution via Compartmentalized Self-Replication. By combining high-throughput screening data with AI-driven rational design techniques, our platform achieves exceptional accuracy and efficiency in protein screening and modification. These innovations not only boost the effectiveness of our existing platforms but also broaden our ability to offer comprehensive solutions in this field.

Apart from empowering our synthetic biology and chemical engineering, AI is also transforming how we design and optimize our products. By leveraging deep learning structures, we have developed proprietary technologies that can significantly enhance the accuracy of gene sequencing, molecular diagnostics, and metagenomic assembly through innovations like our patented sequence correction methods and the MetaCONNECT tool. Moreover, our AI-powered diagnostic solutions can analyze comprehensive health data to generate predictive insights that inform personalized longevity strategies, positioning our company at the forefront of the rapidly expanding proactive healthcare market with multiple commercialization pathways. By integrating AI, we aim to develop cutting-edge diagnostic solutions that deliver personalized wellness and longevity analyses and actionable insights, unlocking new possibilities in sequencing applications and healthcare services.

In addition, the integration of AI algorithms into bioinformatics is revolutionizing the analysis of complex biological data, and we are at the forefront of leveraging this technology to enhance efficiency and accuracy. Our advanced genomic data acts as the essential foundation of our technology, bringing together sequencing results and organized information from multiple sources to power our AI learning systems. This centralized knowledge hub transforms complex genetic information into actionable insights that continuously strengthen our analytical capabilities. Our AI-driven bioinformatics solutions are widely applied across various scenarios, such as circular consensus sequence correction, metagenomic assembly error correction, and longevity-focused diagnostic solutions.

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

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. 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. Notably, we boast a highly skilled and multidisciplinary R&D team, which comprises a staggering 66%

of our total workforce. Approximately 60% of these team members hold a master's or higher degree, and their expertise spans an array of specialized fields including, without limitation, integrated circuits, biochemistry, organic chemistry, surface physics, microfluidics, physical chemistry, bioinformatics, big data, and artificial intelligence. Globally, our core R&D personnel have secured nearly a hundred issued patents, with several more under application.

We place great emphasis on independent R&D initiatives, and our technological prowess is further validated by a well-structured global intellectual property portfolio. As of the Latest Practicable Date, we owned an aggregate of 33 issued invention patents in China, the U.S., and other jurisdictions, as well as 17 software copyrights and four layout-design of integrated circuits registered in China, which collectively safeguard our proprietary products and technologies.

Our achievements in R&D are inseparable from a seasoned and visionary leadership team composed of industry veterans. Dr. Tian, our founder and CEO, brings a robust academic foundation complemented by over 100 issued patents globally as an inventor and over 20 years of industry experience in biotechnology and semiconductor. Dr. Ivanov, our founder and COO, holds an impressive track record of innovation, with over 100 issued patents as an inventor and numerous peer-reviewed publications to his name. Together, they bring a synergy of expertise, vision, and leadership that propels our innovation and shapes our growth trajectory.

In recognition of our R&D capabilities, we are the partner of choice with a number of globally renowned universities, research institutes, and biotechnology companies. We are actively fostering industry-academia collaborations, as exemplified by our collaboration on development of non-invasive saliva glucose monitor with an industry-leading research institute. We became an NVIDIA Inception Member in 2023, which allows us to leverage NVIDIA's cutting-edge technologies and open collaborative ecosystem to advance and promote the gene sequencing technology. We have also earned acknowledgement in the entrepreneurial and innovation sector, particularly by advancing to the finals of the inaugural Artificial Intelligence Challenge in the 2024 Nanshan "Entrepreneurship Star" competition.

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

We are making significant strides in advancing our technology platform and a range of innovative life science tools. Our efforts focus on facilitating seamless transition across the entire value chain, from groundbreaking research to industrial applications, and from laboratory to clinical settings. This strategic approach not only underscores our commitment to bridging scientific discovery with practical healthcare solutions, but also the viability of our business model in translating R&D achievements into tangible commercial success.

We have established the first GMP-compliant manufacturing facility in Wuxi, Jiangsu Province, which spans a site area of approximately 4,100 sq.m. This facility is designed to support the demands for our instruments and their exclusively compatible test kits. We have received the medical device production permit for AxiLona EL-100 from Jiangsu MPA in April 2025. We are also accelerating our path to commercialization and have already developed a network of partners and clients who are trialing our product candidates. These initiatives are anticipated to raise awareness about our products, paving the way for future market acceptance once they are officially launched.

As a life sciences company founded in the U.S. and grown in China, we have been actively pursuing a global strategy. We have built an R&D center in the U.S., staffed by a dedicated overseas R&D team of experience professionals. We hold 13 issued overseas patents, with the majority of our patent portfolio protected globally. We have also reached collaborations with prestigious institutions such as Brown University and various overseas laboratories and testing centers, driving the global development and deployment of our products, particularly the EL-NGS platform. Additionally, we are expanding our commercial presence on a global scale, and may build sales and distribution channels in major international markets, as well as fostering international commercial partnerships. We believe this adaptive global expansion strategy will enable us to rapidly tap into regions with high demand for our proprietary products, enhancing market penetration and brand visibility.

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

We are led by a seasoned management team with proven track record. Our founder and CEO, Dr. Tian, is a leading scientist who is the inventor of over 100 granted patents globally, with more than 20 years of experience in the fusion of biotechnology and semiconductor. Dr. Tian obtained a bachelor's degree in applied physics with a minor in business management and a master's degree in engineering physics from Tsinghua University (清華大學) in the PRC in July 1993 and July 1996, respectively. He also obtained a master's degree in electrical engineering and a PhD degree in applied physics from Stanford University in the United States in January 1999 and September 2000, respectively. Before founding our Group, Dr. Tian served leadership roles at global pharmaceutical multinational company, and Silicon Valley technology companies such as InVisage (a fabless semiconductor pioneer acquired by Apple Inc. in 2017 and known for QuantumFilm, a quantum dot-based image sensor technology) and Aptina, positioning him as a pioneer in the convergence of biotechnology and semiconductor technology. Our founder and COO, Dr. Ivanov, is a successful serial entrepreneur with over 30 years of experience in semiconductor and technology industries. As an inventor of over 100 granted patents globally, his expertise in nanomaterials and semiconductor, honed through previous career at InVisage (a company acquired by Apple Inc. in 2017), Intermolecular (an advanced material innovation company which later went public on Nasdaq and subsequently acquired by Merck KGaA.), Blue29, CuTek and Mattson, provide valuable insights into our technological advancements and potential commercial success.

Under Dr. Tian and Dr. Ivanov's leadership, we have assembled a visionary and insightful scientist-led management team, consisting of multiple serial entrepreneurs,

executives from multinational corporations, engineers and scientists. Our management team have educational backgrounds from prestigious international universities, and extensive professional experience at various leading multinational enterprises and research organizations. Their comprehensive expertise across different key areas encompasses gene sequencing, molecular diagnostics, IC design, hardware development, software development, product commercialization, and business development. Their diverse, interdisciplinary expertise empowers us to address the complex challenges at the intersection of IC (integrated circuits), BT (biotechnology), and AI (artificial intelligence).

STRATEGIES

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

We have developed a robust product portfolio in molecular diagnostics and gene sequencing. Moving forward, we aim to accelerate product development across all stages, from preclinical studies all the way to research and clinical applications. Additionally, we are committed to advancing research and development efforts to introduce upgraded products and expand their range of applications. Specifically, we plan to prioritize the following product developments:

AxiLona EL-100

We plan to advance clinical development of AxiLona EL-100 in the U.S., and expect to complete its safety and performance testing in the first half of 2026, following which we will proceed with the clinical trial upon receiving the approval. We plan to upgrade AxiLona EL-100 to enable protein detection. This feature will be applicable in various clinical fields, including the detection of specific protein biomarkers related to Alzheimer's disease, aiding in its diagnosis. We expect to complete the design of protein detecting function in the first half of 2026.

Additionally, we may develop an all-in-one molecular diagnostic POCT device based on AxiLona EL-100 to enable a seamless, fully automated detection workflow — from sample input to result output.

We also plan to continue exploring its potentials in overseas markets. We received the EU CE marking for AxiLona EL-100 in July 2023, and expect to strategically expand its global presence through collaboration with local partners.

AxiLona AXP-100

We plan to actively pursue the clinical application of our EL-NGS gene sequencer 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.

We will continuously iterate and upgrade the AxiLona AXP-100 to enhance its capabilities and performance. Specifically, we plan to continuously optimize biochemical performance, enhance sequencing accuracy, establish multi-chip parallel processing capabilities, improve throughput, shorten detection process time, and reduce device size.

In addition, 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.

AxiLona Library Preparation Robotic System

We have established a collaboration with a manufacturer with extensive liquid handling module development who will supply the robotic components and corresponding consumables under the relevant contract terms to us. Looking ahead, we may establish additional partnerships with other industry players or suppliers to further enhance the automation and portability of our AxiLona Library Preparation Robotic System sequencing workflows.

Test Kits

We are progressing the development of test kits for both of our molecular diagnostic products and EL-NGS platform. We plan to continue 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.

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

Our strategy focuses on enhancing and broadening our core technology platform, which is built upon our expertise across four pivotal domains: semiconductor technology, synthetic biology and chemical engineering, electrochemistry and microfluidics, and artificial intelligence. These core competencies enable us to pioneer innovations at the intersection of IC (integrated circuits), BT (biotechnology), and AI (artificial intelligence). By continually advancing our technological capabilities, we aim to strengthen this distinctive integration, unlocking new possibilities for cutting-edge solutions in both clinical and research applications. This commitment ensures that we remain at the forefront of scientific and technological convergence, addressing complex challenges with unparalleled precision and efficiency. We will continue to strengthen our IC and BT platforms through sustained innovation and advancement. Leveraging the foundation of our IC and BT platform development, we are strategically accelerating our AI capabilities to continuously enhance our operational effectiveness, elevate customer experience, and extract maximum commercial value across our entire ecosystem. Building upon the technologies incubated within these platforms, we plan to progressively expand the boundaries of our product and service offerings to maximize the commercial value of our technology platforms.

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

We will continue to strengthen our in-house commercialization team and implement tailored strategies to meet the diverse demands of different application markets, including scientific research, clinical diagnostics, customs and disease control, translational medicine, and industrial sectors such as sequencing service providers. Our core sales strategy will focus on direct sales, allowing us to build strong customer relationships and deliver customized solutions. In parallel, we plan to establish a distributor network to penetrate specific market segments, leveraging local partnerships to enhance accessibility and expand our reach. By combining a specialized, market-focused commercialization team with a strategic mix of direct sales and distributor networks, we aim to maximize our market presence and drive the successful commercialization of our products.

We are actively preparing for the commercial launch of AxiLona EL-100 for clinical applications, and AxiLona AXP-100 for research applications in the future. We will adopt a dual approach that combines endorsements from Key Opinion Leaders (KOLs) with market-focused education initiatives. KOL endorsements will help establish credibility and trust within the industry and among potential customers, while educational efforts will raise awareness, enhance understanding, and highlight the value of our technologies and solutions to a broader audience. Additionally, we aim to create an open and collaborative platform by establishing strategic partnerships with leading industry players and benchmark institutions. These partnerships will not only amplify our market presence but also foster innovation and shared growth, positioning us as a key player in the industry.

While establishing our domestic market presence, we plan to explore market expansions in overseas markets, targeting key regions such as the United States, Southeast Asia, and the Middle East. we plan to foster strategic alliances with local partners, driving innovation and strengthening our global footprint.

Further enhance manufacturing capacity for gene sequencing and molecular diagnostic products

We are focused on unlocking the production capacity of our Wuxi manufacturing base, which has been designed to support the manufacture of 1,000 instruments and 100,000 test kit units annually, ensuring it meets the demands of large-scale production. This facility will serve as a cornerstone for scaling our operations and maintaining consistent quality at high volumes.

To align with the anticipated progression of our new product pipeline, we are proactively planning to expand our production capacity. These preparations may include increasing manufacturing space, acquiring advanced equipment, optimizing supply chain management, and ensuring a skilled workforce to meet growing demands.

Furthermore, we are committed to enhancing the automation of our production lines. This includes implementing both fully and semi-automated systems to streamline processes, minimize manual intervention, and improve operational efficiency. By advancing our lean manufacturing capabilities, we aim to reduce production costs, increase output consistency, and respond swiftly to market needs.

OUR PRODUCT AND SERVICE PORTFOLIO

The pipeline chart below summarizes the development status of our product candidates, all of which are in-house developed.

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 innovative electrochemical long-read next-generation sequencing (EL-NGS) platform underpins both of our products and spans four key areas: integrated circuit chips, synthetic biology and chemical engineering, electrochemistry and microfluidics, and artificial intelligence.

Our integrated circuit chip technology enables high-throughput, low-cost, and high-precision sequencing, providing essential capabilities for both products, such as multi-target detection and nanopore sequencing. Our synthetic biology and chemical engineering platform enhances the quality of biomarkers and improves enzyme performance, ensuring accurate and reliable results. The integration of electrochemical and microfluidic technologies makes our products more cost-effective, portable, and efficient. Additionally, AI algorithms optimize the accuracy of sequencing and bioinformatics analysis, allowing for continuous improvement and innovation in both diagnostic and sequencing applications. See "— Research and Development — Our Technology Platform" for further information.

We provide comprehensive gene sequencing or molecular diagnostics solutions to our customers, including packages that integrate instrument, test kits, and other essential consumables. This end-to-end approach ensures clients receive a fully optimized testing system rather than isolated components.

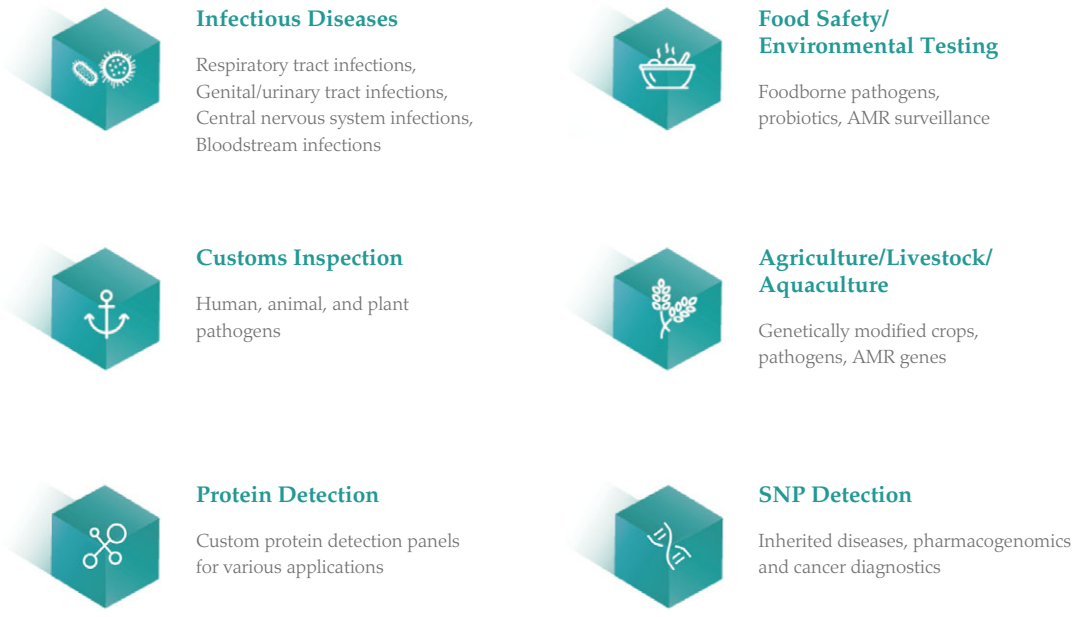
AxiLona EL-100 — Our Core Product

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. 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.

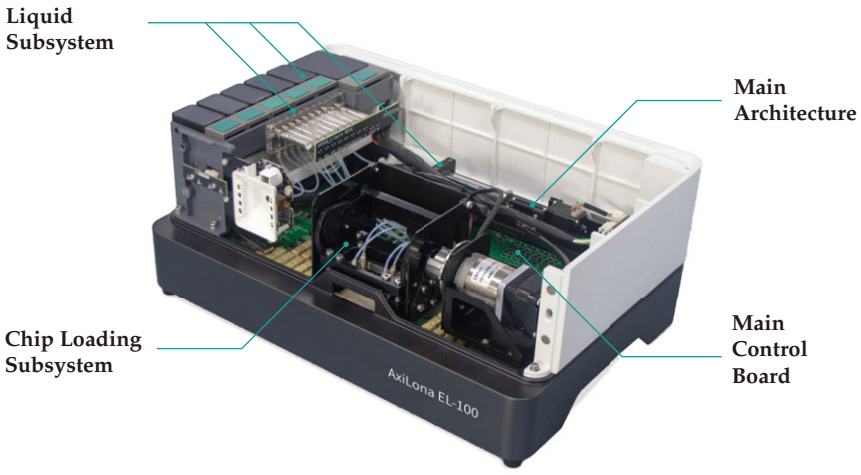
AxiLona EL-100 works with compatible test kits containing a microarray chip to collect and analyze electrical signals from the nucleic acid microarray chip. This allows for qualitative detection in nucleic acid-based testing, and it can be applied in both clinical and research fields, as well as other sectors, as illustrated in the below diagrams. In clinical applications, AxiLona EL-100 can be used for infectious disease detection, cancer screening, genetic disorder testing, and neonatal disease screening, among other reproductive health-related tests. In research and other sectors, it can be used in basic scientific research, drug development, agriculture and food testing, public health monitoring, customs inspection and quarantine, environmental microbiology testing, and forensic identification, among others.



Application Scenarios for AxiLona EL-100

Product Components and Operation Procedure

AxiLona EL-100 is composed of several key components: a main framework (housing), a main control board (electronic circuitry system), a chip loading subsystem (including mechanical movement parts and current signal acquisition module), a liquid flow subsystem (containing the reagent storage system and liquid circulation system), adapters, and software.



Key Components of AxiLona EL-100

AxiLona EL-100 uses a motor-driven mechanism to automatically load and eject disposable microarray chips, ensuring smooth electrical connection between the chip and the device. The user operates the system via a computer with a mouse and keyboard. Data is exchanged between the computer and the device through a USB cable, allowing the computer to read and analyze the sample electrical signals collected by the device.

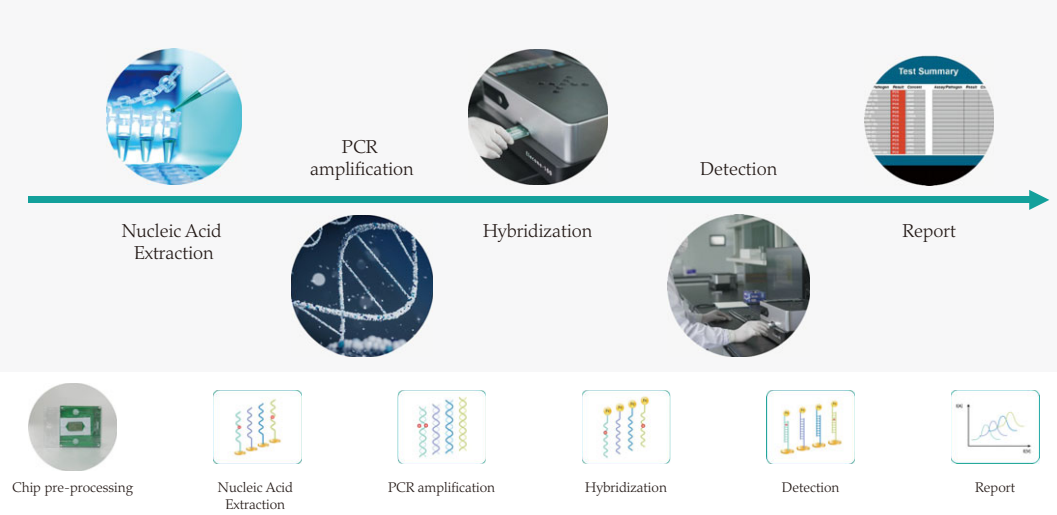
The workflow of AxiLona EL-100 is as follows:

- ***Chip fabrication.*** Multiple oligonucleotide probes are immobilized on the chip using advanced techniques. The design of the chip ensures that the probes are arranged in a precise spatial pattern, facilitating accurate discrimination of targets during the hybridization process.

- ***Sample preparation.*** The workflow begins with nucleic acid extraction from biological samples such as blood or nasal swabs. Once the nucleic acid is extracted, multiplex PCR amplification is performed, serving as library preparation step to produce detectable targets.

- ***Hybridization.*** The electrochemical labeled targets together with controls then are mixed and applied to the fabricated chip, which is followed by washing steps to remove the non-specific interactions.

- ***Signal detection and analysis.*** After short hybridization, the chip is loaded into AxiLona EL-100. When voltage is applied to the chip, redox reactions generate distinctive electrical signals. The signals are then processed by specialized software to produce clinical report accordingly.



Workflow of AxiLona EL-100

AxiLona EL-100 can scan barcodes on the microarray chip and sample cards, or users can manually input the chip and sample card information. During testing, the device displays its operational status and data. After testing, AxiLona EL-100 automatically generates and stores results. The product allows for sorting, filtering, exporting, and reviewing of results. Each test takes approximately three minutes to complete.

Product Features and Technical Advantages

As a next-generation molecular diagnostic platform based on microarray and electrochemical signal sensors, the AxiLona EL-100 addresses the limitations of existing fluorescence PCR products, such as the limited number of detectable targets, and the high cost and lengthy cycle time of mNGS (massively parallel sequencing) testing. It offers the following significant advantages:

- ***Multiplex detection.*** AxiLona EL-100 can detect up to 54 nucleic acid targets simultaneously, making it highly versatile for various diagnostic needs. This multi-target detection capability significantly enhances its diagnostic efficiency compared to traditional methods, which typically focus on only four to six targets at a time. By enabling the detection of multiple biomarkers in a single test, it improves throughput and offers comprehensive analysis in a shorter period.

- ***Cost-effectiveness.*** The use of electrochemical sensors in AxiLona EL-100 significantly reduces the overall cost of testing. Other multi-target molecular diagnostics, especially mNGS and tNGS, can be expensive, due to the need for complex equipment and test kits. In contrast, the electrochemical approach used in AxiLona EL-100 lowers costs, making it more affordable for both clinical and research applications.

- ***High sensitivity.*** AxiLona EL-100 also stands out for its high sensitivity, with a detection limit as low as 100 copies/ml, which is crucial for accurate and timely diagnoses and detection.

- ***Rapid testing cycle.*** AxiLona EL-100 delivers results in under two hours, which is much faster than many conventional molecular diagnostic methods. This rapid turnaround time is crucial in various clinical and research applications.

- ***User-friendly design***. The device is designed to facilitate ease of use. After sample addition and incubation, the process is simplified to just loading the chip and pressing a single button to initiate the test.

- ***Compact and portable size.*** Weighing only 6.15kg and designed with a compact form factor, AxiLona EL-100 is highly portable.

Market Opportunity and Competition

The market potential for molecular diagnostic product 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 include non-sequencing testing methods, comprising of fluorescence *in situ* hybridization (FISH), PCR and gene chip. According to CIC, the global non-sequencing molecular testing market grew from US$4.5 billion in 2018 to US$8.8 billion in 2023, reflecting a CAGR of 14.4%, which is expected to reach US$22.5 billion in 2033, with a CAGR of 9.8%. China's non-sequencing molecular testing market increased from US$0.6 billion in 2018 to US$1.6 billion in 2023, reflecting a CAGR of 22.8%, which is expected to reach US$4.6 billion in 2033, with a CAGR of 10.9%.

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. The chart below illustrates the competitive landscape of China's multiplex PCR microarray analyzer market.

Analysis of China's competitive landscape of multiplex PCR microarray analyzer market

Indicator	Multiplex PCR + Fluorescence Microarray Detection	Multiplex PCR + Electrochemical Microarray Detection
Sensitivity	• ≥200 Copies/mL	• Can be as low as 100 Copies/mL
Specificity	• Relatively low (only specific primers for amplification)	• >99.9% (The combination of specific primers for amplification and highly specific probes for hybridization significantly improves specificity)
Number of Detectable Targets	• Usually 4–6 targets, limited by tube separation (a single tube generally allows for 4 targets; using multiple tubes increases nucleic acid usage, cost, and operational complexity)	• >50 targets
Sample Throughput per Unit Time	• Relatively low (based on a 4-channel device, multiplex detection requires tube separation, with each tube detecting up to 4 items; therefore, the number of samples detectable per unit time is significantly reduced)	• High (If standard PCR is used for amplification, detection throughput is 3-4 times higher than fluorescent quantitative PCR; if paired with front-end processing platforms, detection throughput can exceed that of fluorescent quantitative PCR by over 100 times)
Instrument Cost	• High, complex optical components lead to high instrument cost	• Low, no complex optical components, only 1/10 the cost of a fluorescent quantitative PCR instrument
Reagent Cost	• Relatively high (signal detection requires multiple fluorescent-labeled probes like Taqmanprobes, increasing production cost)	• Low, about 1/2 the cost of fluorescent detection reagents (only one electrochemical group is needed per signal detection; thus only one type of label is needed, resulting in lower production cost)
Convenience	• Relatively large in size and weight	• Compact and convenient
Number of NMPA approval product	• 76	• 2
Key Players	• CapitalBio • Affymetrix • Agilent	• Axbio • Daan Gene

Source: NMPA, public information, literature review, CIC

Summary of Clinical Trial Results

Trial design

We initiated a clinical trial to evaluate the clinical safety and effectiveness of the AxiLona EL-100 in August 2024.

In this trial, the AxiLona EL-100 was used in conjunction with a nucleic acid detection kit for respiratory syncytial virus (RSV) as the test system and a commercially available real-time fluorescence quantitative PCR instrument and respiratory pathogen nucleic acid detection kit were used as the control system for RSV detection on the same swab sample. The trial evaluated the consistency of the detection results of test system and control system, including positive agreement rate, negative agreement rate, overall agreement rate, and Kappa value. Additionally, during the use of the instrument, the trial assessed the AxiLona EL-100's functionality, stability, user-friendliness, and safety.

The trial enrolled patients with suspected respiratory infections, exhibiting symptoms such as cough, nasal congestion, sore throat, fever, headache, and muscle aches, and used throat swab samples.

Trial status

Our 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.

Trial results

244 evaluable subjects were enrolled in this clinical trial. The consistency rate for the positive samples between the test system (AxiLona EL-100) and the control system was

100.00%, the consistency rate for the negative samples between the test system (AxiLona EL-100) 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.

Further Development and Commercialization Plan

We plan to advance clinical development of AxiLona EL-100 in the U.S., and expect to complete its type testing in the first half of 2026, following which we will proceed with the clinical trial upon receiving the approval.

We plan to expand the clinical applications of the AxiLona EL-100 by adding protein detection functionality. This feature will be applicable in various clinical fields, including the detection of specific protein biomarkers related to Alzheimer's disease, aiding in its diagnosis. We expect to complete the design of protein detecting function in the first half of 2026.

Additionally, we may develop an all-in-one molecular diagnostic POCT device based on AxiLona EL-100 to enable a seamless, fully automated detection workflow — from sample input to result output.

We also plan to continue exploring its potentials in overseas markets. We received the EU CE marking for AxiLona EL-100 in July 2023, and expect to strategically expand its global presence through collaboration with local partners.

Material Communications with Competent Authorities

In February 2024, we applied to the NMPA Medical Device Standard Management Center for classification of AxiLona EL-100 and received a notice confirming its classification as a Class II medical device in April 2024.

In May 2024, we submitted an application for the Special Registration Procedures for Innovative Class II Medical Devices (commonly known as Green Path) for AxiLona EL-100 to the Jiangsu MPA and was admitted into Green Path in June 2024.

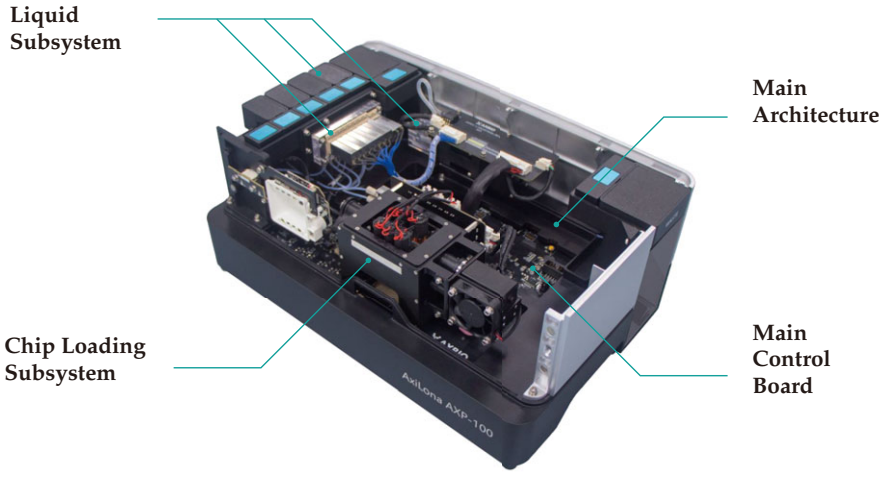
In April 2025, we received the Class II medical device registration certificate for AxiLona EL-100 from Jiangsu MPA.

WE MAY NOT BE ABLE TO ULTIMATELY UPGRADE AND MARKET AXILONA EL-100 SUCCESSFULLY.

AxiLona AXP-100

AxiLona AXP-100 EL-NGS gene sequencer is the world's first EL-NGS product. It achieves an optimal balance across four critical metrics: accuracy, read length, cost, and speed. We launched the product prototype of AxiLona AXP-100 in 2021, launched it for research use in 2023 and realized end-user installation in 2024. In scientific research, the AxiLona AXP-100 can be used for studies on structural variations, analysis of tandem repeat regions, as well as research into single-gene diseases. We also plan to actively pursue the clinical application of AxiLona AXP-100. The clinical applications of the AxiLona AXP-100 include cancer diagnosis, infectious disease and infection diagnosis, as well as reproductive defect diagnosis. 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. We plan to develop universal test kits for AxiLona AXP-100, and test kits with specialized application across domains of genetic disorders, microbiology, and oncology.

Appearance of AxiLona AXP-100

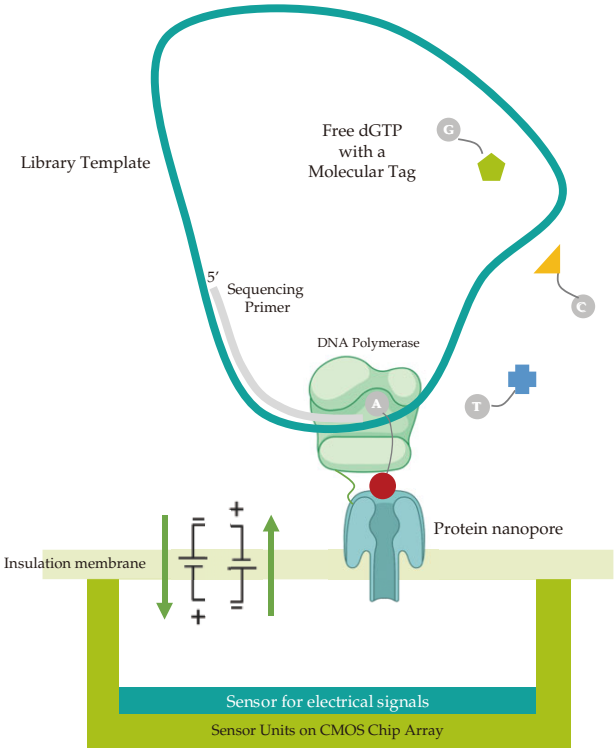


Key Components of AxiLona AXP-100

Product Description and Operation Procedure

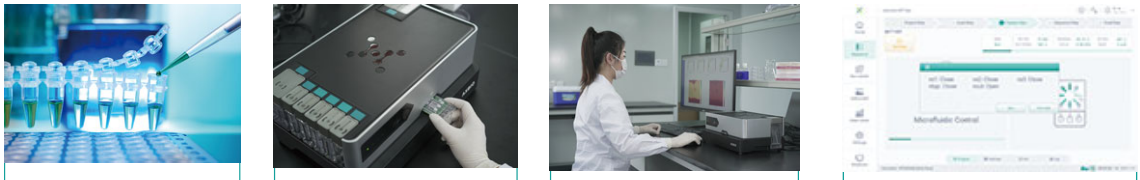
In the AxiLona AXP-100, individual nucleic acid molecules, which are labeled with molecular tags, are attached to polymerases captured by nanopores. During the primer extension process, nucleotides with corresponding tagged molecules pass through the nanopores sequentially, generating distinct electrical signals. These signals are used by the device to characterize the base sequence of the nucleic acid, enabling high-accuracy sequencing.

The diagram below illustrates the technical principle of EL-NGS, where synthesis and sequencing occur simultaneously, in the AxiLona AXP-100.



EL-NGS of AxiLona AXP-100

The diagram below demonstrates the workflow of AxiLona AXP-100.



Workflow of AxiLona AXP-100

Product Features and Technical Advantages

Our EL-NGS gene sequencer AxiLona AXP-100 offers several key advantages that make it a highly efficient and reliable tool for gene sequencing and molecular diagnostics:

- ***Longer read lengths.*** By introducing the groundbreaking EL-NGS using proprietary polymerases and molecular tags, AxiLona AXP-100 enables simultaneous synthesis and sequencing. This technology allows for single-molecule cyclic sequencing with repetitive consensus analysis, ensuring long reads, high precision, and real-time sequencing and data output.

- ***High accuracy.*** AxiLona AXP-100 integrates AI algorithms for base calling and cyclic consensus sequence correction, enhancing the efficiency and accuracy of sequencing. With an accuracy rate greater than 99%, the AxiLona AXP-100 ensures highly reliable and precise results.

- ***Fast sequencing.*** The AxiLona AXP-100 is capable of generating data at a high rate, producing up to one million reads instantly. This enables real-time sequencing with a turnaround time of less than 4 hours, significantly reducing the time required to obtain results compared to other sequencing methods.

- ***Compact and portable.*** Despite its advanced capabilities, the AxiLona AXP-100 is designed to be small and lightweight. With a volume of just 0.013m^3 and a weight of around 6.85kg, it is highly portable, making it suitable for use in various settings.

- ***Flexible and on-demand operation.*** One of the advantages of the AxiLona AXP-100 is its flexibility in sample processing. Samples can be tested as they arrive, without the need to batch samples together. This on-demand testing capability ensures quick and efficient sample analysis without delays.

- ***Cost-effective.*** The cost per Gigabases of data generated by the AxiLona AXP-100 is significantly lower than that of traditional NGS technologies. This makes it a more affordable option for high-throughput sequencing, providing great value for both clinical and research applications.

Market Opportunity and Competition

Recent advances in both global and China's gene sequencing markets have been largely driven by the adoption of next-generation sequencing technologies. As demand for long-read, more cost-effective, and more comprehensive genomic analysis grows, high-throughput sequencing platforms have emerged as the backbone of this progress, enabling the parallel sequencing of millions of DNA molecules and significantly expanding the scale and efficiency of genomics research and clinical applications.

The high-throughput gene sequencing segment has experienced robust growth in recent years and is projected to accelerate further, positioning itself as one of the most dynamic drivers within the broader gene sequencing landscape. The global high-throughput gene sequencing market grew from US$4.7 billion in 2018 to US$6.7 billion in 2023, reflecting a CAGR of 7.3%, which is expected to reach US$21.9 billion in 2033, with a CAGR of 12.5%. China's high-throughput gene sequencing market increased from US$0.9 billion in 2018 to US$1.2 billion in 2023, reflecting a CAGR of 5.5%, which is expected to reach US$5.3 billion in 2033, with a CAGR of 16.5%.

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 table below sets forth the top five players in the global high-throughput gene sequencing instrument and consumables market and their respective market shares by revenue in 2023.

Company	Market share (%)
Illumina	72.1%
Thermo Fisher Scientific	9.5%
MGI	6.7%
Pacific Biosciences	4.0%
Oxford Nanopore Technologies	3.9%

Notes:

(i) Market share represents each company's revenue from gene sequencing instruments, compatible consumables, and after-sales maintenance service in the global high-throughput gene sequencing instrument and consumables market.

Source: Annual reports of listed companies, JPM conference, expert interviews, CIC

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. The table below sets forth the top five players in China's high-throughput gene sequencing instrument market and their respective market shares by revenue in 2023.

Company	Market share (%)
Illumina	54.2%
MGI	32.6%
Thermo Fisher Scientific	4.3%
Oxford Nanopore Technologies	3.2%
Pacific Biosciences	2.6%

Notes:

(i) Market share represents each company's revenue from gene sequencing instruments, compatible consumables, and after-sales maintenance service in China's high-throughput gene sequencing instrument and consumables market.

Source: Annual reports of listed companies, JPM conference, expert interviews, CIC

Further Development and Commercialization Plan

We plan to actively pursue the clinical application of AxiLona AXP-100. We anticipate completing the type testing for the AxiLona AXP-100 in China in the second half of 2025, and subsequently commencing clinical trials.

We plan to continuously iterate and upgrade the AxiLona AXP-100 to enhance its capabilities and performance. Specifically, we plan to continuously optimize biochemical performance, enhance sequencing accuracy, establish multi-chip parallel processing capabilities, improve throughput, shorten detection process time, and reduce device size.

In addition, 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.

WE MAY NOT BE ABLE TO ULTIMATELY DEVELOP AND MARKET AXILONA AXP-100 SUCCESSFULLY.

Test Kits

Our test kits comprise biochips, reagents and other essential 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 detection and pathogenic microorganism detection. We anticipate completing design verification of the genetic 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.

Services and Other Products

Synthetic Biology and Chemical Engineering Services

We provide synthetic biology and chemical engineering services, which are part of our biotechnology services primarily aimed at biotech companies. One of our key offerings is custom synthesis of chemical products, which involves tailored small molecule synthesis, optimization, and enhancement of biological activity for biomedical research and industrial applications. This service has been fully developed, and we have already delivered two batches of products to clients in 2024.

Another service we offer is high-throughput protein mutagenesis services, which includes gene synthesis, mutant library construction, protein expression and purification, high-throughput screening of mutants, and sequence validation. This service has also been fully developed and is available for external use to facilitate specific needs.

Multi-omics Detection Solutions

Leveraging our EL-NGS platform technology — the foundation of our Core Product — we are actively advancing service solutions for multi-omics protein detection. Our ELP solution for multiplex protein marker detection extends our core platform capabilities through offering protein biomarker detection, delivering 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. Together, these interconnected platforms establish a unified framework for comprehensive multi-omics detection solutions.

Non-invasive Saliva Glucose Monitor

Building upon our proprietary electrochemical detection capabilities, we have developed a consumer-focused non-invasive saliva glucose monitor designed for home-use 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 institute for further development, demonstrating market validation of both our technology and R&D competencies. This exemplifies our multifaceted development strategies through collaborative partnerships.

AxiLona Library Preparation Robotic System

The AxiLona Library Preparation Robotic System represents our next-generation robotic platform for genomic workflow automation. It features precise liquid handling with automation capable of pipetting as low as 1μL, achieving a precision coefficient of variation (CV) as low as 0.5%.

The robotic system is equipped with a pipetting arm with up to eight channels that offers full-range pipetting, ensuring accuracy, efficiency, and flexibility. It utilizes capacitive and pressure sensing technology to detect liquid levels, clots, air gaps, and pipette tips, enhancing reliability and preventing errors. The system also includes automatic needle installation and removal, providing real-time monitoring for improved needle removal efficiency and preventing contamination.

For high-efficiency library construction, the system integrates PCR, magnetic rack, temperature control, and anti-contamination modules. It automates the entire library preparation process, enabling the construction of eight samples per batch. This automation reduces labor requirements, saving approximately 50% of the time compared to manual methods. Laboratory validation has shown that the library yield and read length distribution produced by the AxiLona Library Preparation Robotic System are consistent with manual preparation, ensuring the same high-quality results.

We have established a collaboration with a specialized liquid handling module manufacturer who will supply the robotic components and corresponding consumables under the relevant contract terms to us. We will enjoy the ownership of the patents related to such robotic system developed through this 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.

RESEARCH AND DEVELOPMENT

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."

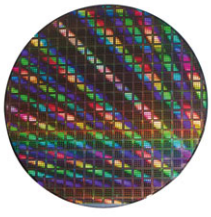
Our comprehensive proprietary portfolio spans instruments, test kits and services. As of the Latest Practicable Date, we have one product approved for registration by Jiangsu MPA, namely our Core Product, AxiLona EL-100. We are actively exerting substantial R&D efforts to unleash the clinical application 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 are continuously expanding our product and service offerings leveraging our foundational technology platforms.

Our Technology Platform

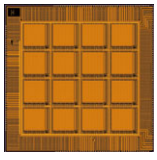
We focus on developing foundational life science technology platforms, with core expertise spanning four key areas: integrated circuit chips, synthetic biology and chemical engineering, electrochemistry and microfluidics, and artificial intelligence.

Integrated Circuit Chip Technology

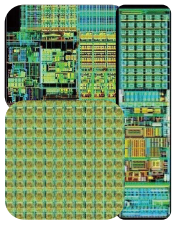
According to CIC, we are among the few companies in the molecular testing industry with a semiconductor R&D team, who possess extensive experience in advanced semiconductor process design and manufacturing focused on integration with bio liquids. Our independently developed semiconductor biochip, microfluidic Bio-CMOS chip, serves as the core component of our EL-NGS gene sequencers and other molecular diagnostic products. It employs innovative design techniques, forming the foundation of our high-throughput, low-cost, and high-precision sequencing and molecular diagnostic products. Below are pictures demonstrating our wafer, Bio-CMOS chips and integrated circuit.



Wafer



Bio-CMOS chip



Integrated Circuit

Our self-developed microfluidic Bio-CMOS chip is the globally first 300mm, 65nm process Bio-CMOS chip with one million sequencing channels. The chip has successfully

completed tape-out, full system validation, and scaled mass production. Key features and advantages of our proprietary Bio-CMOS chip are as follows:

- ***High-throughput and significant cost reductions.*** The Bio-CMOS chip features ultra-high throughput, with over one million parallel nanopore detection cells per chip, significantly reducing detection costs. We have also completed the design of a next-generation chip capable of throughput in the tens of millions.

- ***Advanced CMOS-based design.*** Our chips are engineered based on traditional Complementary Metal-Oxide-Semiconductor (CMOS) principles to enable multi-array scanning, the generation and reading of various electrochemical signals with a very low noise, and enabling high-speed analog-to-digital conversion on a large scale but using lab-on-chip microfluidics.

- ***High precision and low noise.*** The chip uses AC impedance signals for detection, offering clear signals, ultra-low noise, and high precision. Unlike DC-based designs, it eliminates the need for liquid pressure storage, enabling a smaller working space per cell.

- ***Compatibility with standard semiconductor processes.*** The chip is compatible with mainstream semiconductor processes, facilitating large-scale production using existing integrated circuit manufacturing techniques. This results in economies of scale that significantly reduce production costs.

The process of developing and iterating semiconductor chips is highly complex, involving significant investment and specialized expertise, which create challenging entry barriers for our competitors. Our proven microfluidic chip design and manufacturing capabilities distinguish us from our competitors, allowing us to maintain technological superiority and secure a leading position in the market.

Synthetic Biology and Chemical Engineering Technology

We have independently developed a synthetic biology and chemical engineering platform equipped with comprehensive synthesis and analytical instruments, as well as a rapid high-throughput automated system. This platform supports the full range of biological synthesis tasks, including small molecule building block synthesis, DNA synthesis, post-synthesis modifications, purification, and analytical testing. Key capacities of our synthetic platform include:

- ***Modified dNTP synthesis.*** Using our synthetic biology platform, we have synthesized modified deoxynucleoside triphosphates (dNTPs) and linked them to uniquely designed molecules to create high-purity, clear-signaling biomarkers for sequencing applications. These biomarkers significantly enhance the signal-to-noise ratio in gene sequencing.

- ***Custom synthesis.*** Our platform provides customized synthesis of DNA, RNA, various standard and modified phosphoramidites, and oligonucleotides. The resulting products feature (i) high purity (≥98% for HPLC main peak area and mass spectrometry analysis), (ii) high synthesis capacity (up to 1 mmol per batch), and (iii) stable quality.

- ***Innovative enzyme engineering.*** We developed cutting-edge enzyme engineering technologies, including (i) a microfluidics-based high-throughput protein screening and evolution system, capable of screening approximately 10^5 to 10^6 random mutants, and (ii) a protein rational design platform driven by AI algorithms, sequence analysis, and critical site analysis. Leveraging these technologies, we have discovered multiple polymerases with high salt tolerance and strong synthetic capabilities for gene sequencing, which significantly enhance the performance of our sequencing products.

Synthesis Lab

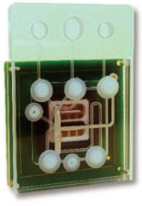
Solid-Phase Synthesis Facility

Analytical Lab

Our Laboratories for Synthetic Biology Services

Electrochemical and Microfluidic Technologies

Our Bio-CMOS chip integrates electrochemical biosensor technology with a precise microfluidic system, based on which we have developed the cutting-edge cartridge used in our instruments as illustrated in the following diagram:



Cartridge

Our Bio-CMOS chip offers the following multiple advantages:

- ***Ultra-low cost.*** Electrochemical detection significantly reduces costs for both instruments and test kits compared to other methods. This makes it highly accessible for widespread applications.

- ***High throughput.*** The scalability of electrochemical detection allows for the development of high-density detection arrays.

- ***High accuracy.*** Electrochemical detection provides enhanced sensitivity by generating direct and rapid signals with minimal signal loss. This ensures reliable and precise measurements.

- ***Portability.*** Unlike optical signal detection methods, electrochemical detection eliminates the need for bulky optical components, enabling the miniaturization and portability of gene sequencing devices. This facilitates the development of compact and portable products.

- ***Fast turnaround time.*** The direct readout of electrical signals allows for faster detection and higher efficiency, significantly reducing the time required for analysis compared to more complex detection methods.

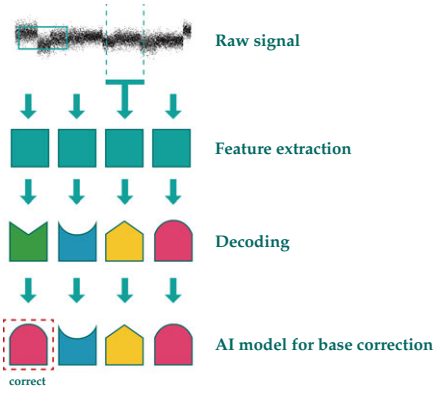
By combining electrochemical biosensor technology with microfluidic precision, the Bio-CMOS chip represents a breakthrough in cost-effective, high-throughput, accurate, portable and fast detection solutions, making it ideal for a wide range of applications, including gene sequencing and molecular diagnostics.

AI-Driven Innovation

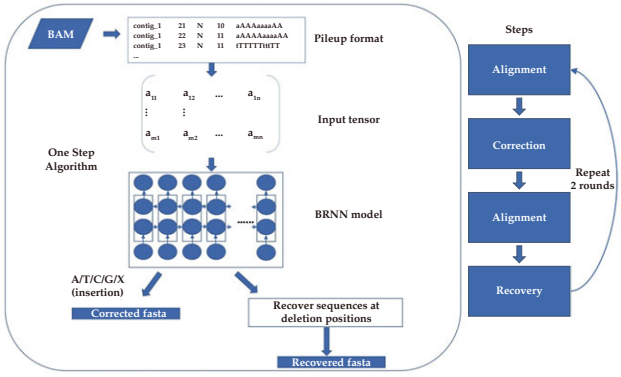
Our AI capabilities significantly enhance our synthetic biology and chemical engineering expertise. Databases linking protein sequences with structures, combined with advances in AI technology, have significantly accelerated *de novo* protein design for creating customized enzymes, protein-based drugs, vaccines, and drug delivery vehicles. AI integration with protein engineering and synthetic biology efficiently supports various aspects of biomedical research and industrialization. Based on our solid platform technologies, we have independently developed multiple synthetic biology and chemical engineering platforms, including high-throughput automated protein screening systems and rapid high-throughput small molecule automated synthesis systems. These platforms enable us to optimize and modify biological protein activity, thereby enhancing the performance and yield of synthetic products. Through AI integration, we can achieve engineered modeling of polymerases, nanopore proteins, and sequencing complexes through various methods including identifying key sites and improving enzyme modeling. Leveraging AI, we also build microfluidics-based high-throughput protein mutation systems. We have established mutation libraries of target genes based on microfluidic PCR, enabling protein-directed evolution through Compartmentalized Self-Replication, with an effective screening throughput of approximately 10^5-10^6 random mutants. Based on industry requirements, we can complete specific design and screening of other proteins. This high-throughput protein screening and modification system, combined with AI, serves as a versatile technology platform applicable across multiple sectors.

Beyond synthetic biology, our AI technologies transform product development across our portfolio to further improve their performance. For example, our advanced AI system transforms the basic electrical signals from our sequencing technology into clear, organized genetic information that shows relationships between different parts of the genome. Utilizing deep learning-based base recognition algorithms, our system delivers unparalleled accuracy in sequence correction. We developed and patented new sample preparation methods for both single-stranded DNA and double-stranded DNA, enabling robust sequence correction and enhanced high sequencing accuracy. In addition, by employing neural network-based machine learning models, our platform excels in error correction during metagenomic assembly.

Notably, we have developed MetaCONNECT, a novel metagenomic assembly tool, through research collaboration with Peking University and Inner Mongolia Agricultural University. This tool specializes in error correction for long-read sequencing data in metagenomic assemblies, delivering superior performance across key metrics including accuracy, coverage, contiguity and resource consumption in studies. MetaCONNET demonstrates better genomic accuracy compared to another software. Moreover, in terms of computational efficiency, MetaCONNET significantly outperforms other similar software, requiring fewer CPU hours. In addition, we are developing AI-powered longevity solutions to analyze diagnostic data from various tests, providing comprehensive insights into factors influencing lifespan and health. By integrating predictive modeling and pattern recognition, we enable the development of personalized health strategies aimed at promoting longevity. Below is the workflow of our deep learning-based base recognition algorithms and the neural network-based machine learning model powering our MetaCONNECT platform.



Workflow of Deep Learning-based Base Recognition Algorithms



Neural Network-based Machine Learning Model

Source: MetaCONNET: A metagenomic polishing tool for long-read assemblies, Dec 2024, PLOS ONE

Furthermore, our integration of AI algorithms into bioinformatics revolutionizes complex biological data analysis, with our advanced genomic data serving as the foundation for our AI learning systems. AI algorithms assist in our bioinformatics analysis, helping interpret gene sequences. Specifically, we use (i) a deep learning-based base-calling algorithm to correct consensus sequences during circular sequencing, (ii) neural network-based machine learning models are applied for error correction during metagenome assembly. By seamlessly integrating deep learning algorithms with genetic data, we unlock new frontiers in precision, efficiency, and innovation. At the core of our approach is the powerful interplay between vast genetic information and deep learning structures. Bioinformatics serves as a powerful data analysis tool for gene sequencing and molecular diagnostics. AI algorithms amplify this capability by offering precise predictions, pattern recognition, and seamless data integration. These advancements not only improve diagnostic accuracy but also open up new possibilities in fields such as personalized medicine, microbiome research, and longevity science.

Product Development Cycle

We have built an in-house R&D management system. This management system enables our R&D activities to effectively align with the customers' needs and expectations based on regular interactions with customers and in-depth market research. Leveraging the seamless collaboration among different functional groups, we are able to deliver products with high quality to address market needs. Our product development process typically involves the following steps:

- *Product proposal and approval.* We typically collect thorough information related to market trends and demands before initiating a new product development project. Our product development cycle starts with a preliminary development proposal that describes unmet needs, research areas, key technologies and potential risks. Such a proposal is then assessed by multiple functional teams to consider technical feasibility, manufacturability, market potential, budget, and other critical variables. After that, a finalized product proposal is prepared for internal review by our management team, who will decide whether to proceed with the proposed project.

- *Product design and development.* After our management team approves the project, we will formulate a detailed development plan covering the product functionalities and applications, as well as labor and budget planning, and then commence the development process. Our new product design and development will strictly follow our internal control protocol prepared with reference to the risk management standards under GMP and ISO 13485:2016, among others. For details, please refer to "— Quality Control" in this section.

- *Product testing and validation.* All products will go through several rounds of internal testing and external file tests. Our management team will collect comprehensive feedback so that we can refine our designs, resolve technical issues and fix technology bugs. In addition, some of our products for clinical use are required to be validated in clinical trials in the relevant jurisdictions. For details, please refer to "— Research and Development — Clinical Development" in this section.

- *Launch.* In compliance with industry norms, we typically launch our products for RUO purpose after passing strict quality control checks, and continue to supervise their production and sales. For certain products for clinical use, we will launch them after receiving the relevant regulatory approvals, which vary in different jurisdictions. For details, please refer "Regulatory Overview."

Our Research and Development Team

We have assembled a sophisticated and stable R&D team comprised of 81 members with multidisciplinary backgrounds and industry know-how across semiconductor, biotechnology and artificial intelligence, 60% of whom hold doctorate or master's degrees. Compatible with our global operations, we have R&D centers located in both China and the U.S. Our R&D team is led by our visionary and seasoned senior management. Our founder and CEO, Dr. Tian, is a leading scientist who is the inventor of over 100 granted patents globally, with more than 20 years of experience in the fusion of biotechnology and semiconductor. Dr. Tian obtained a bachelor's degree in applied physics with a minor in business management and a master's degree in engineering physics from Tsinghua University (清華大學) in the PRC in July 1993 and July 1996, respectively. He also obtained a master's degree in electrical engineering and a PhD degree in applied physics from Stanford University in the United States in January 1999 and September 2000, respectively . Before founding our Group, Dr. Tian served leadership roles at global pharmaceutical multinational company, and Silicon Valley technology companies such as InVisage (a fabless semiconductor pioneer acquired by Apple Inc. in 2017 and known for QuantumFilm, a quantum dot-based image sensor technology) and Aptina, positioning him as a pioneer in the convergence of biotechnology and information technology. Our founder and COO, Dr. Ivanov, is a successful serial entrepreneur with extensive R&D experience and founded multiple biotech companies. As an inventor of over 100 granted patents globally, his expertise in nanomaterials and semiconductor, honed through previous career at InVisage (a company acquired by Apple Inc. in 2017), Intermolecular (an advanced material innovation company which later went public on Nasdaq and subsequently acquired by Merck KGaA.), Blue29, CuTek and Mattson, provide valuable insights into our technological advancements and potential commercial success. For details, please refer to "Directors and Senior Management."

Our R&D team members possess strong academic backgrounds, having received professional education from world-renowned institutions such as Stanford University, Yale University, Purdue University, and Peking University. Our biochemistry and product integration team comprises professionals who have spearheaded gene sequencing or

molecular diagnostic product development at prestigious entities such as Life Technologies (acquired by Thermo Fisher), the U.S. CDC, the Translational Innovation Center of Shenzhen Bay Laboratory, BGI and various nanopore sequencing companies. Our hardware and electronics team is made up of seasoned professionals with deep technical expertise, including IC design veterans, micro-electromechanical systems and nanotechnology experts, and software engineers specializing in medical device and AI-driven medical imaging system development.

We have entered into labor contracts with intellectual property assignments, confidentiality and non-compete provisions with all of our employees, pursuant to which intellectual property conceived and developed during their employment belongs to us, and all relevant rights or claims to such intellectual property are waived.

Clinical Development

We conduct clinical trials of certain product candidates if required by applicable laws and regulations. For details, see "Regulatory Overview — Relevant Laws and Regulations in the PRC — Regulation of Medical Devices — Clinical Evaluation and Clinical Trials of Medical Devices." We have professional personnel responsible for our in-house clinical development process, the duties of which include selecting clinical trial institutions, designing clinical trials, supervising CROs, monitoring clinical progress, and preparing materials for regulatory purposes.

Collaboration with Clinical Trial Institutions

The NMPA maintains a catalog of hospitals registered as clinical trial institutions, from which we select a number of leading hospitals to conduct our clinical trials. The factors we commonly consider when selecting institutions include their credentials, expertise, academic influence and background, infrastructure, equipment and patient demographics. We also meet with potential investigators to discuss the purpose and requirements of our clinical trial. After comprehensive evaluation, we and the institution generally enter into an agreement setting out the clinical trial's purpose, timeline, procedures, methods and risks. We then work together with the principal investigators to obtain an opinion from the institution's ethics committee. The clinical trials must be conducted in accordance with the protocol approved by the ethics committee. Any amendments to the protocol must be re-evaluated and approved by the ethics committee.

During the Track Record Period, we cooperated with two clinical trial institutions in China for the clinical trial of our Core Product, including Zhejiang Provincial People's Hospital (浙江省人民醫院, which was the leading site) and Yichang People's Hospital (宜昌市人民醫院).

Pursuant to the agreements with these participating clinical trial institutions, the institutions are required to conduct the clinical trials strictly in accordance with the protocol, to collect data, and to issue trial reports at the end of each clinical trial. The lead institution will prepare formal reports based on the trial reports submitted by all participating institutions. In return for the institutions' services, we make scheduled payments as specified in the agreements. Under the agreements, we generally own all the

intellectual property in relation to the clinical trial while the participating institutions may publish or otherwise use the clinical trial results for academic activities with our prior approval.

We maintain close communication with principal investigators involved in clinical trials, who are mainly reputable physicians and researchers in the clinical institutions, to better understand the performance of our product candidates and resolve any issues that might come up during clinical trials. We believe communication and suggestions from principal investigators from a clinical perspective are valuable to us in adjusting our registration plan and upgrading our design and development of product candidates.

Relationships with CROs

We collaborate with reputable CROs to conduct and support of our clinical trials. We select CROs by weighing various factors, such as their qualifications, expertise, experience, reputation and costs. We generally enter into an agreement with the CRO for each clinical trial. The CROs must comply with all applicable laws and regulations as well as follow our protocols to ensure that all clinical trial results are accurate and authentic. For the development of our Core Product, we collaborate with one CROs to conduct clinical trials.

Under the agreements with our CROs, we are responsible for trial protocol design and supervision of the trial progress, while the CRO takes responsibility for trial preparation, test sample collection, trial implementation and management, record keeping and report preparation to guarantee the compliance of the clinical trial process with applicable regulations or standards. In return for their services, we make scheduled payments as agreed in the agreements. Under the agreements, we generally own all intellectual property and trial results and the CROs must maintain strict confidentiality with respect to the information they acquired from us during clinical trials.

Collaboration with Third Parties

Besides collaborations for the purpose of clinical trials, we have developed strategic alliance and collaboration with renowned partners, facilitating scientific discoveries and technical advancements. For example, we collaborate with prominent universities, research institutes and hospitals, including Peking University, Guangzhou University, Huazhong University of Science and Technology and Inner Mongolia Agricultural University in the form of research projects, in which we are deeply involved in the major research and development activities. Under the collaboration agreements, the intellectual property rights arising from these research projects are either solely owned by us or co-owned, while specific ownership terms may be negotiated on a case-by-case basis. Collaborations with these third parties tightens customer relationships, keeps us informed of market demands and leading-edge technologies, and inspires us to continuously improve our products.

MANUFACTURING

Manufacturing Facilities and Production Capacity

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. As of the Latest Practicable Date, we had a manufacturing team of 18 employees. We have received the medical device production permit for AxiLona EL-100 from Jiangsu MPA in April 2025. 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.

The machines we use to manufacture our instruments and test kits mainly include, among others, air conditioning and purification system, purified water system, comprehensive electrical safety performance tester, plasma cleaning machine, spotting instrument, vacuum packaging machine, fluorescence quantitative PCR instrument, microscope, ultra-low temperature refrigerator. We purchase machinery from multiple suppliers, and we are able to purchase manufacturing machinery from alternative suppliers. As of the Latest Practicable Date, we owned all the equipment used in our production processes, including laboratory equipment and instruments. We perform routine and preventative maintenance on our manufacturing machinery and equipment to ensure their proper functioning. During the Track Record Period and up to the Latest Practicable Date, we had not experienced any material interruption to our production process due to machine or equipment failure.

We believe that our current manufacturing capacity is able to meet our short-term commercial needs. In addition, we have access to China's vast labor pool, which makes it easier for us to hire people with the appropriate skills for our production. Typically, we require new employees to undergo two to four weeks of training before they commence work on our production lines. The training continues with respect to specific steps in the production process after employees commence work on the production lines. The comprehensive training enables us to increase our capacity utilization rate and our product yield rate, which as a result enhances our manufacturing efficiency.

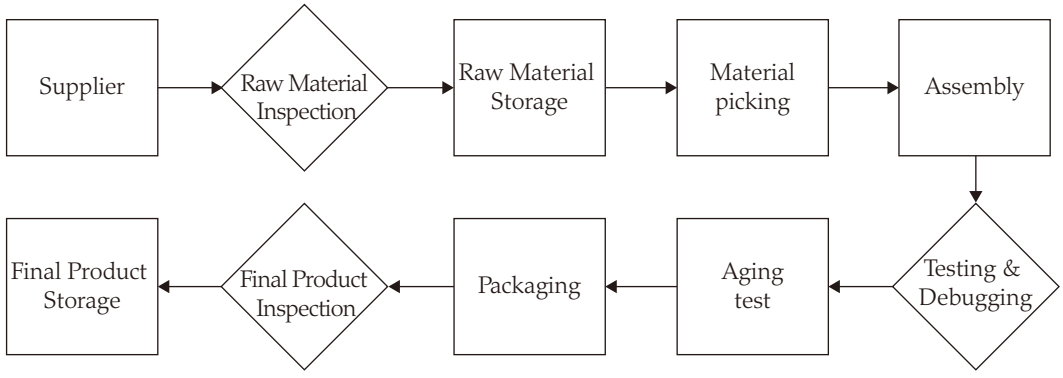
Our Manufacturing Team

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.

Production Process

Production Process for Our Instruments

The following diagram illustrates the production process for our instruments.



The following is a brief description of the key steps in our manufacturing process of instruments.

- *Preparation of raw materials.* We procure raw materials from multiple suppliers to satisfy subsequent production steps. Following receipt, we inspect these materials to ensure they meet our quality standards before storing them in appropriate warehouses. Upon retrieval from the warehouse, materials are temporarily stored in the production area until needed. Materials with electrostatic discharge sensitivity undergo appropriate anti-static handling procedures. All instrument assembly operations are conducted in controlled cleanroom environments to ensure product quality and prevent contamination.

- *Modular manufacturing.* We produce major product parts in modular and standard procedures to efficiently manufacture standardized components that can be assembled into different end products.

- *Assembly.* Product components and parts are assembled according to the requirements of our production operation manual.

- *Testing.* We test the functionality of such components and products according to applicable testing standards.

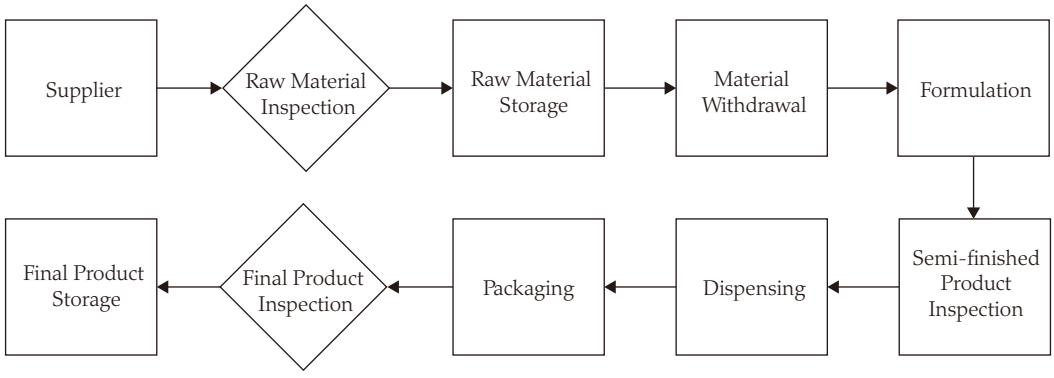
- *Aging.* We conduct product aging tests to observe how product properties change over time, ensuring that products maintain their safety and efficacy even after extended storage periods.

- *Packaging.* We pack our products in compliance with sterile integrity and regulatory standards.

- *Inspection.* We conduct final inspection of our finished products according to applicable inspection standards and regulations.

Production Process for Our Test Kits and Other Consumables

The following diagram illustrates the production process for our test kits and other consumables.



The following is a brief description of the key steps in our manufacturing process of test kits and other consumables.

- *Preparation of raw materials.* We procure raw materials from suppliers to satisfy subsequent production steps. Following receipt, we inspect these materials to ensure they meet our quality standards before storing them in appropriate warehouses. Upon retrieval from the warehouse, materials are temporarily stored in the production area until needed.

- *Solution preparation.* We add a certain volume of each component according to our product protocol and production operation manual to prepare a primary solution. We dilute the primary solution with diluent according to our product protocol and manufacturing manual to produce an intermediate reagent product.

- *Quality control sample preparation.* Our consumables include quality control samples, which are primarily positive control products and negative control products that are used as a reference to testing samples in order to ensure the operation accuracy of the testing process.

- *Formulation.* Upon completion of all preparation steps, we proceed with reagent formulation.

- *Semi-finished inspection and quality control.* Our quality control personnel monitor our entire production process. After the reagent preparation, our quality control personnel take samples of the intermediate reagent products for quality inspection.

- *Dispensing and Packaging.* We dispense the reagents of our consumables according to the requirements of our production operation manual for different categories of reagent kits. We package our consumables according to our production operation manual and relevant regulatory requirements.

- *Final inspection.* We conduct final inspection of our finished products.

PRODUCT WARRANTY, RETURN, RECALL AND EXCHANGES

For our commercialized products, our internal policy is to assume responsibility as required by law if the competent regulatory authorities find that our products are defective. During the Track Record Period and up to the Latest Practicable Date, we were not aware of any such finding. We provide free repair services to customers within the specified warranty period of our products. In specific circumstances, following appropriate control procedures, we may authorize product returns or exchanges. During the Track Record Period and up to the Latest Practicable Date, we had not experienced any material customer complaint or product return or exchange from customers. Neither had we experienced any product recall during the Track Record Period and up to the Latest Practicable Date.

SALES AND MARKETING

Sales of Our Products

During the Track Record Period, we mainly sell our products directly to our customers and we expect to rely on direct sales of our products 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.

Direct Sales

In 2023, we have not generated any revenue from the sales of products. In 2024, a majority of our revenue from the sales of products were derived from direct sales. We have started and will continue to employ a series of effective and efficient measures to promote our direct sales to universities, hospitals and other academic institutions. For example, we have formulated strong connections with KOLs from a variety of universities and hospitals, who will help us promote our product sales through their professional background based on our products' satisfactory performance. The following is a summary of certain terms and conditions in our sales and purchase agreements involving the direct sales of our products:

- *Duration*. The contract is effective from the date of signing and remains valid until all obligations are fulfilled.

- *Sales and Purchase*. We will sell and deliver specified products at a fixed price provided in the agreement to the buyer.

- *Payment*. The buyer must pay the full amount as specified in the payment terms. We typically offer two payment options: 100% payment before shipment, or a certain percentage upfront and the remaining amount within specified months after shipment, subject to case-by-case negotiation.

- *Delivery*. We are responsible for delivering the products to the buyer's designated location within several working days, typically 60 working days, after receiving the payment and written shipping notice from the buyer. The buyer must cooperate in receiving the goods and sign the delivery documents upon receipt.

- *After-sales*. We provide ongoing technical support and maintenance services for the products.

- *Return.* Returns are only accepted for products with quality defects.

- *Confidentiality*. The buyer must keep all information related to the products confidential and use it only for the purposes specified in the contract.

- *Termination*. We reserve the right to terminate the contract without prior consent from the buyer and without further liability. In the event of termination by the buyer, a penalty as a certain percentage of the total purchase price is required.

Sales Through Distributors

We are in the process of establishing our distribution network and will expand the network after our products are approved for clinical use as well as we roll out new products. As of the Latest Practicable Date, we had seven distributors in China, and we currently do not have any sub-distributors. We generally operate a single-layer

distribution system and do not allow distributors to engage sub-distributors within their designated geographic area, unless with our prior review and consent. During the Track Record Period, to the best of our Directors' knowledge, none of our distributors had any past or present relationship (business or otherwise) with our Group, our shareholders, Directors, senior management or any of their respective associates.

We are highly selective in the distributors we engage. We seek to select distributors with valid licenses, well-established sales channels, wide coverage of hospitals, strong customer service and after sales service capabilities, a good credit profile, stable operation sites and sufficient financial capacity. We have established smooth communication channels with distributors which help us to gather necessary information to set reasonable sales targets for distributors and adopt appropriate sales and pricing strategies.

We recognize revenue from distributor sales when the products have been delivered, and titles have passed to the distributor upon its receipt. Please refer to "Financial Information — Material Accounting Policies and Significant Accounting Judgements and Estimates — Material Accounting Policies — Revenue Recognition" for more details of our revenue recognition policies.

We generally enter into written agreements with selected distributors. The following is a summary of key terms of our written agreements with distributors.

- *Duration.* The distribution agreements typically have a one-year term. The sales and purchase agreements are on an order-by-order basis.

- *Sales and purchase.* We will sell and deliver specified products at a fixed price provided in the agreement to distributor.

- *Payment.* The distributor must pay the full amount as specified in the payment terms. We require the distributor to pay 100% payment before shipment.

- *Delivery.* We shall deliver and install the products at our expenses, within a specific period after receiving the full payment (usually 30 days).

- *After-sales service.* We shall provide related ongoing technical support and maintenance services for a specific period after sale.

- *Return.* We do not accept product return except for products with quality defects, which is in line with market practice.

- *Confidentiality.* Distributor shall keep confidential any information relating to our products.

- *Geographic restrictions and exclusivity.* We grant our distributors exclusive rights to sell our designated products to their designated end-customers or end-customers within their designated territories. Our distributors are required to abide by geographic restrictions stipulated in the written agreements.

- *Sub-distributors.* Distributors are strictly prohibited from appointing sub-distributors within their authorized territories without our prior written consent. Where authorization is granted, distributors must submit sub-distributor profiles (including territorial scope, pricing terms, and performance metrics) and execute a tripartite agreement jointly with us.

- *Termination.* The agreement may be terminated by us when, among other things, the distributor fails to comply with relevant laws and regulations, fails to meet its target sales amount, or breaches any undertaking in the agreement and fails to remedy such breach within a specified period of time. Either party to the distribution agreement has the right to terminate the agreement with three months' notice.

Our Directors confirmed that there was no material breach of distribution agreements and sales and purchase agreements that caused the termination of such agreements during the Track Record Period.

Marketing

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. Our academic marketing activities primarily include:

- establishing clinical collaboration with top-tier hospitals, pharmaceutical companies and research institutes,

- providing product education to potential and current customers, and

- participating in medical conferences and industry exhibitions to communicate with doctors, researchers and other industry players to keep abreast of the latest industry developments and clinical practices and to present our products and services and share our latest research and product development progress. For example, in March 2025, we attended the CACLP 2025 and organized a living streaming event to introduce our brand and products to potential customers.

We rely on KOLs to introduce and recommend our products to physicians and clinical researchers. KOLs have academic incentives in learning the latest molecular diagnostic and gene sequencing options available in China within their therapeutic areas and introducing cutting-edge technologies and products that they believe have clinical benefits to other physicians, all of which help maintain their reputation and standing within the broader medical community. In addition, we are also expanding our reach to

other innovative areas to build reputation and recognition. For instance, we have established cooperative relationship with Nanjing customs in the field of identification of endangered species.

We have also established an active online presence through our social media accounts and our corporate websites at https://www.axbio.cn/. On these online channels, we provide extensive information about our technology platform, our superior products and solutions, and our competitive and technical advantages.

Pricing

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.

In addition, our pricing strategies may also be affected by the regulations and policies in the general medical device industry. As of the Latest Practicable Date, there was no pricing guidance or centralized procurement set by the PRC government on our products. If the PRC government issues pricing guidance for our products, the prices thereof may be negatively affected. For details, please see "Risk Factors — Risks Relating to Our Business and Industry — Risks Relating to the Commercialization of Our Product Candidates — Even if we are able to commercialize any products, the pricing of such products may be subject to downward changes, which may have a material adverse effect on our business, financial condition and results of operations." As of the Latest Practicable Date, the use of our products is not included in the medical insurance reimbursement list in China. We closely monitor new policies affecting the pricing of medical devices and their relevant services globally, and keep updating our pricing strategies to navigate in the evolving regulatory environment and cope with local policies and competition in different regions, intending to maintain the price levels of our products and maximize our overall sales.

OUR CUSTOMERS

We have a broad and diversified customer base. As of the Latest Practicable Date, we have sold our products to research institutes and hospitals in China and the U.S. Our customers generally have sound and stable financial conditions and pose low risk of default, which contributes to our healthy cash flow and our ability to operate in a volatile market. We have also earned strong loyalty among 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. The following table sets forth details of our five largest customers during the Track Record Period:

Five largest customers	Background	Products or services provided	Commencement of business relationship	Credit term	Revenue contribution *(USD in thousands)*	% of total revenue in same period
For the year ended December 31, 2024						
Customer A	A private company founded in 2018 in China that engages in the provision of medicine and healthcare-related services	EL-NGS gene sequencers	2024	Partial advance payment, balance paid after delivery and acceptance	119	24.8
Customer B	A private company founded in 2014 in China that engages in the provision of genetic testing services	EL-NGS gene sequencers	2024	Partial advance payment, balance paid after delivery and acceptance	118	24.6
Customer C	A private company founded in 2023 in Kazakhstan that engages in equipment distribution	Molecular diagnostic solutions	2023	Advance payment	91	19.0
Customer D	A public hospital founded in 1956	Molecular diagnostic solutions	2024	Partial payment after acceptance, balance paid later	72	15.0
Customer E	A leading comprehensive research university	EL-NGS gene sequencers	2023	Full payment upon delivery and acceptance	70	14.6
Total					**470**	**98.1**

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.

OUR SUPPLIERS AND RAW MATERIALS

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. Please see below a summary of the purchases from our five largest suppliers for the periods indicated.

Five largest suppliers	Principal business	Products or services purchased	Commencement of business relationship	Credit term	Purchase amount *(USD in thousands)*	% of total purchases in same period
For the year ended December 31, 2023						
Supplier B	A private company founded in 1999 in China that provides technical and other services to new high-tech enterprise	Site rental services	2022	Monthly payment	666	6.9
Supplier A	A renowned research institute founded in 2000 in China	Scientific research services	2017	Advance payment	639	6.6
Supplier F	A private company founded in 2017 in China that provides engineering construction and design services	Renovation Services	2022	Payment based on milestones	618	6.4
Supplier G	A private company founded in 2006 in China that provides engineering construction and design services	Renovation Services	2022	Payment based on milestones	474	4.9
Supplier H	A private company founded in 1993 in China that provides property management services	Property management services	2022	Advance payment	343	3.6
Total					**2,740**	**28.4**

Five largest suppliers	Principal business	Products or services purchased	Commencement of business relationship	Credit term	Purchase amount *(USD in thousands)*	% of total purchases in same period
For the year ended December 31, 2024						
Supplier A	A renowned research institute founded in 2000 in China	Scientific research services	2017	Advance payment	824	10.8
Supplier B	A private company founded in 1999 in China that provides technical and other services to new high-tech enterprise	Site rental services	2022	Monthly payment	601	7.8
Supplier C	A private company founded in 1993 in China that provides corporate and enterprise management services	Labor dispatching services	2022	Advance payment	411	5.4
Supplier D	A famous law firm in the U.S.	Legal services	2018	Advance payment	407	5.3
Supplier E	A private company founded in 2020 in China that engages in technology research and development and equipment sales	Equipment	2024	Advance payment	281	3.7
Total					**2,524**	**33.0**

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.

Overlapping of Customers and Suppliers

Customer E was one of our five largest customers in 2024, and also a supplier of ours in both 2023 and 2024. We engaged Customer E to provide R&D services for us, and Customer E purchased our EL-NGS gene sequencers during the Track Record Period. The transaction amount of our purchase from Customer E as a percentage of our total purchases was 0.5% and 2.6% in 2023 and 2024, respectively. Revenue generated from Customer E as a percentage of our total revenue was 14.6% in 2024.

Negotiations of the terms of our sales to and purchases from Customer E were conducted on an individual basis, and the sales and purchases were neither inter-connected nor inter-conditioned with each other. Our Directors confirm that all of our sales to and purchases from Customer E were conducted in the ordinary course of business under normal commercial terms and on arm's length basis. Our Directors confirm that, saved as disclosed above, none of our major suppliers was our customers, or *vice versa*, during the Track Record Period.

Raw Materials

For our products and product candidates, we primarily use raw materials including (i) printed circuit board assembly, pumps, wafers, valves, plastic parts, and metal processing components for our products, and (ii) enzymes, probes, primers, common chemical reagents, and screw-cap tubes for test kits. Among these raw materials, we in-house produce certain enzymes, probes, chemical reagents. We may expand our own production lines to enable manufacturing of other certain raw materials. We select our raw material suppliers based on a number of factors, including the quality of raw materials, after-sales service and price. We use reputable suppliers from China, Europe and other countries. Based on the current market conditions, we intend to maintain stable working relationships with our major suppliers of raw materials. However, we cannot assure that we will maintain our working relationships with our major suppliers on similar terms, if at all. Although we maintain a list of backup suppliers if any supplier fails to timely deliver raw materials, we are still subject to risks associated with shortage of raw materials. For details, see "Risk Factors — Risks Relating to Our Business — Risks Relating to the Manufacturing of Our Product Candidates — We depend on third-party suppliers to supply raw materials to be used in manufacturing 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" in this document. During the Track Record Period and up to the Latest Practicable Date, we had not experienced any material difficulties in procuring our major raw materials and had not experienced significant fluctuations in the prices of our supplies. To the best knowledge of our Directors, there had been no material breach of our procurement agreements with our suppliers during the Track Record Period.

INVENTORY MANAGEMENT

Our inventory mainly consists of raw materials and consumables used on our proprietary instruments, as well as finished goods. We regularly monitor our inventories and endeavor to keep an optimal inventory level in line with the expected usages in the near term. We operate warehouses and have established an inventory management system to monitor each stage of the warehousing process. Warehouse personnel are responsible for the inspection, storage and distribution of raw materials. Our Directors confirmed that our inventory control system and policies had been effective and we did not experience any material shortage in supply or overstock of inventories during the Track Record Period and up to the Latest Practicable Date.

QUALITY CONTROL

The quality, safety and reliability of our products are vital to our continued success. Our quality control and regulatory team is involved in every aspect of our daily operations to ensure the quality control of our products. We have established an internal control protocol for the design and development of medical devices with reference to various domestic and international risk management standards, including GMP, GBT42061-2022 and GB/T42062-2022 idt ISO14971:2019. We provide trainings to relevant employees to ensure that they are able to correctly and effectively implement our quality control system. Our quality control procedures in the production process primarily consist of the following:

- *Raw material control and inspection.* We conduct meticulous due diligence on our suppliers and only purchase our raw materials from suppliers whose qualifications satisfy our internal supply management policies. We also inspect samples from each batch of raw materials to help ensure there are no quality or other issues;

- *Process control.* We plan the production process based on the technologies adopted by each product type and monitor the entire production process, particularly certain key steps of the production process. Each semi-finished product is required to go through the QC inspection and QA confirmation process to be used for the next stage manufacturing step;

- *Product inspection.* We compile our product inspection manual based on our product specifications, and inspect our products in accordance with our product inspection manual, including testing the capability and measurement of our products, verifying the product labels and manuals as well as confirming that the products are properly packaged; and

- *Product release.* During the production process, all records, procedures, methodologies, and inspection logs are meticulously reviewed to ensure they align with product specifications and quality standards. Upon verification, our products are granted entry into the warehouse, accompanied by the release document and a certificate of conformity.

We had complied with all of our quality qualification requirements in material respects up to the Latest Practicable Date. During the Track Record Period and up to the Latest Practicable Date, we had not received any material complaints about product quality and our products had not been subject to any material claim, litigation or investigation.

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. The following table sets forth material patents relating to our Core Product and Key Product as of Latest Practicable Date.

Related Product	Title of Patent	Jurisdiction	Patent Holder	Date of grant
AxiLona EL-100	A liquid system and a nucleic acid testing device (一種液路系統及核酸檢測設備)	PRC	Anxuyuan Wuxi	July 25, 2023
AxiLona EL-100	A chip for calibrating a testing device (一種校正檢測儀器的芯片)	PRC	Anxuyuan Wuxi	July 25, 2023
AxiLona EL-100	Microfluidic chips and nucleic acid testing devices (微流控芯片及核酸檢測設備)	PRC	Anxuyuan Wuxi	August 18, 2023
AxiLona EL-100	Systems and methods for assessing a target molecule	Japan	Axbio US	January 14, 2025
AxiLona AXP-100	Methods for processing a nucleic acid sample and compositions thereof	U.S.	Axbio US	March 18, 2025
AxiLona AXP-100	Methods, systems, and compositions for nucleic acid sequencing	U.S.	Axbio US	February 18, 2025
AxiLona AXP-100	Methods, systems, and compositions for nucleic acid sequencing	U.S.	Axbio US	March 14, 2023
AxiLona AXP-100	Biomolecule diagnostic systems	U.S.	Axbio US	November 1, 2022
AxiLona AXP-100	Sequencing reagents (測序試劑)	PRC	Anxuyuan Shenzhen and Anxuyuan Wuxi	November 8, 2022
AxiLona AXP-100	Integrated circuits for analyzing biological systems	U.S.	Axbio US	March 23, 2021
AxiLona AXP-100	Apparatus and methods for continuous diagnostics of macromolecules	U.S.	Axbio US	February 9, 2021
AxiLona AXP-100	Devices and methods for measuring the properties of macromolecules	U.S.	Axbio US	December 17, 2019
AxiLona AXP-100	Gene sequencing apparatus and gene sequencing methods (基因測序裝置和基因測序方法)	PRC	Anxuyuan Shenzhen	June 27, 2023

Related Product	Title of Patent	Jurisdiction	Patent Holder	Date of grant
AxiLona AXP-100	Preparation method of branch-like macromolecule-modified nucleotides (樹杈狀大分子修飾的核苷酸的製備方法)	PRC	Anxuyuan Shenzhen	October 21, 2022
AxiLona AXP-100	Microfluidics devices and gene sequencer (微流體裝置及基因測序儀)	PRC	Anxuyuan Shenzhen	June 11, 2024

The term of an individual patent may vary based on the countries/regions in which it is granted. The actual protection afforded by a patent varies on a claim-by-claim and country-by-country basis and depends upon many factors, including the type of patent, the scope of its coverage, the availability of any patent term extension or adjustment, the availability of legal remedies in a particular country/region and the validity and enforceability of the patent. We cannot provide any assurance that patents will be issued with respect to any of our owned or licensed pending patent applications or any such patent applications that may be filed in the future, nor can we provide any assurance that any of our owned, licensed, or issued patents or any such patents that may be issued in the future will be commercially useful in protecting our core product and pipeline products and methods of manufacturing the same.

We rely, in some circumstances, on trade secrets or confidential information to protect aspects of our technology. We seek to protect our proprietary technology and processes, in part, by entering confidentiality arrangements with consultants, advisers, and other third parties. We have entered into labor contract with intellectual property assignments and confidentiality provisions with all of our employees, pursuant to which intellectual property conceived and developed during their employment belongs to us, and they have waived all relevant rights or claims to such intellectual property. We have also entered into non-compete agreements with key employees. We also have established an internal policy governing the confidentiality of all company information.

However, the confidentiality arrangements may not provide enough protection of our trade secrets or confidential information. These agreements may also be breached, resulting in the misappropriation of our trade secrets or confidential information, and we may not have an adequate remedy for any such breach. In addition, our trade secrets or confidential information may become known or be independently developed by a third party, or misused by any collaborator to whom we disclose such information. Despite any measures taken to protect our intellectual property, unauthorized parties may attempt to or successfully copy aspects of our products or to obtain or use information that we regard as proprietary without our consent. As a result, we may be unable to protect our trade secrets and proprietary information sufficiently. For details, please refer to "Risk Factors — Risks Relating to Our Business and Industry — Risks Relating to Our Intellectual Property Rights — If we are unable to protect the confidentiality of our trade secrets, our business and competitive position would be harmed. We may be subject to claims that our employees have wrongfully used or disclosed alleged trade secrets of their former employers."

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. However, there are risks if we fail to protect our intellectual property rights in the future. For details, please refer to "Risk Factors — Risks Relating to Our Business and Industry — Risks Relating to Our Intellectual Property Rights."

COMPETITION

We operate in a rapidly changing market, resulting from technological advances and scientific discoveries. Principal competitive factors important to our success include superior performance of our molecular diagnostic and gene sequencing products, strong multidisciplinary and proprietary technology capabilities, established brand awareness and end-user recognition, effective sales channels, a stable supply chain and the ability to navigate and comply with stringent regulation. For additional details regarding the competitive landscape of the industry in which we operate, please refer to "Industry Overview." We believe we have established strong competitive advantages with our highly synergistic and comprehensive portfolio and R&D-driven innovation, which we expect to enable us to maintain our market leading position and capture future opportunities. We strive to rapidly advance our product candidates into commercialization and receiving approval to solidify our first-mover advantage with respect to clinical application of molecular diagnostic and gene sequencing amongst other players in the industry.

AWARDS AND RECOGNITION

The following table sets out a summary of the major awards and recognition we have received as of the Latest Practicable Date.

Year	Award or Recognition	Issuing Authority
2025	Best Team Award at "Kechuang • Lake Liuye" Synthetic Biology Innovation and Entrepreneurship Competition	Department of Commerce of Hunan Province and The People's Government of Beijing Municipality
2024	2024 Future Healthcare 100 Strong: China Innovative Medical Devices and Intelligent Manufacturing TOP 100	VB100, Artery Net, Eggshell Research Institute

Year	Award or Recognition	Issuing Authority
2024	2024 Medical Device Industry Top 100 Emerging Enterprises Innovation Index and 2024 Medical Device Industry Innovation Index in In Vitro Diagnostics (IVD) Sector	National Innovation Center for Advanced Medical Devices
2024	Advancement to the Semi-Finals of the 16th China (Shenzhen) Innovation and Entrepreneurship Competition	Organizing Committee of China (Shenzhen) Innovation and Entrepreneurship Competition
2023	2023 Greater Bay Area Enterprise Innovation Power List: Future Creator Star List	Shenzhen Industrial Federation
2023	2023 VentureBeat 100 Future Unicorn List	VentureBeat
2023	China Innovative Medical Device TOP 100	VB100, Artery Net, Eggshell Research Institute
2022	2022 First Batch of National "High-Tech Enterprises"	National High-Tech Enterprise Recognition Management Working Leadership Group Office
2022	2022 China Top 100 Emerging Enterprises in High-Performance Medical Devices	National Innovation Center for Advanced Medical Devices
2021	Beyond Awards	BEYOND Expo
2021	4th Greater Bay Area Biotechnology Innovation Enterprise 50 Strong: Pioneer Enterprise	China Innovation Research Institute, Guangdong Medical Valley
2018	Nanshan Leading Team Program	Shenzhen Nanshan District Science and Technology Innovation Bureau

EMPLOYEES

As of the Latest Practicable Date, we employed 122 full-time employees, the majority of whom were based in China. The following table sets forth the number of our full-time employees by function as of the Latest Practicable Date.

Function	Number	% of Total
R&D	81	66.4
Manufacturing and quality control	18	14.8
Management and administrative affairs	17	13.9
Sales and marketing	6	4.9
Total	**122**	**100.0**

We enter into an employment contract with each employee covering matters including salaries, bonuses, employee benefits, workplace safety, confidentiality obligations, work product assignment clause, and grounds for termination, among others. We have entered into labor contract with intellectual property assignments and confidentiality provisions with all of our employees. We have also entered into non-compete agreements with key employees.

To maintain our workforce's quality, knowledge, and skill levels, we provide continuing education and training programs, including internal and external training, for our employees to improve their technical, professional, or management skills. We also provide training programs to our employees from time to time to ensure their awareness and compliance with our policies and procedures in various aspects. Furthermore, we provide various incentives and benefits to our employees, including competitive salaries, bonuses, and share-based payment to our employees, particularly our key employees.

During the Track Record Period, we did not pay social insurance and housing provident funds in full for some of our employees based on their actual salary level. We have made full provisions in respect of the outstanding amount of the social insurance fund and housing provident fund contributions. In 2023 and 2024, our shortfall of contribution to social insurance and housing provident funds amounted to US$739.0 thousand and US$524.0 thousand, respectively.

As advised by our PRC Legal Adviser, and in light of the relevant facts outlined above, if we promptly pay the historical outstanding amounts within the stipulated timeframe as required by the competent authority, the likelihood that we are subject to late payment fees and any material penalties due to our failure to provide full social insurance and housing provident funds contributions for our employees is remote. As of the Latest Practicable Date, no competent government authorities had imposed fine or penalty to us with respect to this non-compliance incident.

We consider our relations with our employees to be good. During the Track Record Period and up to the Latest Practicable Date, we did not experience any strikes or labor disputes which had a material effect on our business.

PROPERTIES

As of the Latest Practicable Date, we leased five properties in Shenzhen, Wuxi, and Tianjin in China, with a gross floor area of approximately 7,972.33 sq.m., and two properties in the U.S., with a gross floor area of approximately 10,400 sq. ft. We believe our current facilities are sufficient to meet our near-term needs, and we can obtain additional space on commercially reasonable terms to meet our future needs. We do not anticipate undue difficulty in renewing our leases upon their expiration.

The following table sets forth a summary of the properties leased by us of the Latest Practicable Date.

No.	Type of Property	Location	Gross Floor Area	Lease Term
1	Premises	Shenzhen	1,557.42 sq. m.	2024.03-2025.10
2	Premises	Shenzhen	1,557.41 sq. m.	2022.10-2025.10
3	Premises	Wuxi	1,506 sq. m.	2023.01-2027.12
4	Premises	Wuxi	2,620 sq. m.	2022.07-2027.06
5	Premises	Tianjin	731.5 sq. m.	2025.01-2025.12
6	Premises	U.S.	4,000 sq. ft.	2023.05-2026.05
7	Premises	U.S.	6,400 sq. ft.	2024.08-2026.05

Pursuant to the applicable PRC laws and regulations, property lease agreements must be registered with the local branch of the Ministry of Housing and Urban-Rural Development of the PRC. As of the Latest Practicable Date, we had not completed the relevant property leasing registrations for one lease agreement. For details of the risk associated with the unregistered lease agreements, please refer to "Risk Factors — Risks Relating to Doing Business in the Jurisdiction Where We Mainly Operate — One lease agreement of our leased properties has not been registered with the relevant PRC government authorities as required by PRC law, which may expose us to potential fines." According to our PRC Legal Advisor, the failure to complete such registration process does not affect the validity of the relevant property lease agreements, and a maximum penalty of RMB10,000 may be imposed for the non-registration of each lease agreement. During the Track Record Period and up to the Latest Practicable Date, we had not been subject to any penalties arising from the non-registration of our lease agreement, and had not experienced any dispute arising out of, or in relation to, our leased properties.

INSURANCE

Our principal insurance policies cover property and general liability. We consider that the coverage from the insurance policies maintained by us is adequate for our present operations and aligns with the industry norm. During the Track Record Period, we had not made, or been the subject of, any material insurance claims. For risks relating to our insurance coverage, please refer to "Risk Factors — Risks Relating to Our Operations — We have limited insurance coverage, and any claims beyond our insurance coverage may result in our incurring substantial costs and a diversion of resources."

LICENSES, PERMITS AND APPROVALS

As of the Latest Practicable Date, we had obtained all requisite licenses, permits, and approvals from relevant authorities that are material to our operations, and such licenses, permits, and approvals all remain in full effect. For more details regarding the PRC and foreign laws and regulations to which we are subject, please refer to "Regulatory Overview."

The table below sets forth the relevant details of the material licenses we hold for our operation as of the Latest Practicable Date.

License/Permit	License/ Permit No.	Entity	Grant Date	Authority	Validity Period
Medical Device Production License (醫療器械生產許可證)	20250068	Anxuyuan Wuxi	April 2025	Jiangsu MPA	April 11, 2025 to April 10, 2030
Class I Medical Device Production Record Filing Certificate (第一類醫療器械生產備案憑證)	20230018	Anxuyuan Wuxi	August 2023	Wuxi Municipal Bureau of Administrative Examination and Approval	Long term
Medical Device Registration Certification (醫療器械註冊證)	20252220593	Anxuyuan Wuxi	April 2025	Jiangsu MPA	April 7, 2025 to April 6, 2030
Class I IVD Reagent Record Filing (第一類體外診斷試劑備案信息表)	20230086, 20230087, 20230088	Anxuyuan Wuxi	July 2023	Wuxi Municipal Bureau of Administrative Examination and Approval	Long term

License/Permit	License/ Permit No.	Entity	Grant Date	Authority	Validity Period
Class I Medical Device Record Filing Certificate (第一類醫療器械備案憑證)	20190490	Anxuyuan Shenzhen	July 2019	Shenzhen Municipal Food and Drug Administration	Long term
Class II Medical Device Distribution Record Filing Certificate (第二類醫療器械經營備案憑證)	20230580	Anxuyuan Medical Technology	June 2024	Wuxi Municipal Bureau of Administrative Examination and Approval	Long term
Medical Device Distribution License (醫療器械經營許可證)	20250043	Anxuyuan Medical Technology	March 2025	Wuxi Municipal Bureau of Data Administration	Long term

We intend to apply for renewal of the above key licenses prior to their respective expiry dates. The successful renewal of our existing licenses, permits, and approvals will be subject to our fulfillment of relevant requirements. Our Directors are not aware of any reason that would cause or lead to the non-renewal of the licenses, permits, and approvals. Our PRC Legal Advisor confirmed that as of the Latest Practicable Date, there was no material legal impediment for us to renew the licenses, permits, and approvals as long as we comply with the relevant legal requirements.

HEALTH, SAFETY, SOCIAL AND ENVIRONMENTAL MATTERS

We acknowledge our environment protection and social responsibilities and are aware of the environmental, energy, climate-related and workplace safety issues that may impact our Group's business operations. We have implemented company-wide environmental, health and safety ("**EHS**") policies and standard operating procedures in relation to work safety, environmental protection, fire safety, emergency response and occupational health. During the Track Record Period and up to the Latest Practicable Date, we did not incur a material cost of compliance with relevant environmental protection laws and regulations. We are committed to complying with environmental, social and governance ("**ESG**") reporting requirements upon [**REDACTED**].

During the Track Record Period and up to the Latest Practicable Date, we complied with the relevant environmental and occupational health and safety laws and regulations in all material respects and had not been subject to any material claim or penalty in relation to health, safety, social and environmental protection, or been involved in any significant workplace accident or fatality, and we did not have any incidents or complaints which had a material and adverse effect on our business, financial condition or results of operations during the same period.

Environmental Protection

We strive to operate our facilities in a manner that protects the environment. We do not operate in a highly polluting industry, but the manufacturing process of our instruments, test kits and product candidates for clinical trials and research involves the use of hazardous chemicals, flammable and toxic materials, and may exhaust gas and generate wastewater, solid waste, and other hazardous waste. In 2023 and 2024, we incurred costs for treating hazardous waste of RMB86.4 thousand and RMB92.8 thousand, respectively. To ensure compliance with national, industrial, and local environmental standards, laws, regulations, and policies, we have implemented internal policies for environmental risk prevention. These policies include stringent guidelines of procedures for operating in our laboratory and manufacturing facilities in relation to environmental protection.

We conduct environmental impact assessments to monitor emission levels. We use a range of metrics to evaluate the impact of environmental risks. The following table sets forth the indicators related to our energy consumption during the Track Record Period.

	For the year ended December 31,	
	2023	**2024**
Energy consumption		
Electricity *(MWh)*	716.9	852.0
Water *(kilotons)*	333.0	269.3

The following table sets forth the indicators related to our waste production of our China-based entities during the Track Record Period.

	For the year ended December 31,	
	2023	**2024**
Waste		
Waste water *(tons)*	16.6	13.9
Solid waste *(tons)*	8.3	5.3

During the Track Record Period and up to the Latest Practicable Date, we had not received any fines or penalties associated with the breach of any environmental laws or regulations. To the best knowledge and belief of our Directors, we are not subject to material environmental liability risk and will not incur material compliance costs in the future.

Workplace Safety

We are dedicated to ensuring a safe working environment for our employees. We firmly believe that a safe and healthy workplace is not only crucial for the well-being of our employees but also indispensable for the sustainability of our business. We have implemented and upheld a comprehensive set of rules, standard operating procedures, and measures to ensure the health and safety of our employees. Our safety guidelines cover a range of areas including identifying potential hazards, safe practices, accident prevention, and procedures for reporting accidents. We ensure that our employees continually acknowledge their understanding of safety protocols as needed. Specifically, we have (i) established guidelines governing manufacturing and research procedures, (ii) provided regular safety awareness training to our employees, (iii) established systems for occupational disease prevention, (iv) fully inform our employees of the occupational disease factors they may be exposed, (v) maintain health records for all employees and conduct health examinations, (vi) conducted regular fire safety inspections, ensure the maintenance of firefighting equipment, and organize routine emergency drills to prepare employees for emergency situations, and (vii) established effective rescue and response mechanism.

Workplace Diversity

In respect of social responsibilities, we are committed to offering a fair and caring working environment to our employees. We hire employees based on their merits. We offer equal opportunities to our employees regardless of gender, age, race, religion or any other social or personal characteristics, and provide training programs to keep our employees abreast of industry and regulatory developments. We have not had any significant workplace accidents since our inception.

Climate Change

We believe that we are not susceptible to climate change. Moreover, we consider that potential changes to the regulations in the PRC regarding climate change will not adversely impact our business operations. We will continue to pay attention to risks regarding climate change and formulate emergency plans to safeguard us from climate change and extreme weather conditions, such as hurricane and rainstorms. As of the Latest Practicable Date, we had not experienced any material impact on our business operations or financial performance as a result of climate change or extreme weather conditions.

LEGAL PROCEEDINGS AND REGULATORY COMPLIANCE

We are committed to maintaining the highest standards of compliance with the laws and regulations applicable to our business. However, we may be subject to legal proceedings, investigations, and claims arising from the ordinary course of our business from time to time, and we may also initiate legal proceedings in order to protect our intellectual property and other rights. Our Directors confirmed that, as of the Latest Practicable Date, we were not a party to any actual or threatened legal or administrative proceedings which would have a material and adverse impact on our business, financial

condition or results of operations, and our Directors were not aware of any potential or threatened legal, arbitral or administrative proceedings to which we will be named as a party. Our Directors further confirm that none of our Directors or senior management personnel was personally involved in any of these legal, arbitral, or administrative proceedings.

Our PRC Legal Advisor confirmed that during the Track Record Period and up to the Latest Practicable Date, we had not been and were not involved in any material non-compliance incidents that have led to fines, enforcement actions or other penalties that could, individually or in the aggregate, have a material adverse effect on our business, financial condition and results of operations. Our Directors confirmed that we were not involved in any material or systematic non-compliance incidents.

RISK MANAGEMENT AND INTERNAL CONTROL

Risk Management

We recognize that risk management is critical to the success of our business. For a discussion of various operational risks and uncertainties we face, please refer to "Risk Factors." We are also exposed to various market risks, particularly the foreign currency risk, interest rate risk, credit risk and liquidity risk that arise in the normal course of our business. Please refer to "Financial Information — Financial Risk Disclosure" for a discussion of the market risks.

We have adopted a consolidated set of risk management policies which set out a risk management framework to identify, assess, evaluate and monitor key risks associated with our strategic objectives on an on-going basis. The Board is responsible for the oversight of the risk management system and the management is responsible for the design, implementation and monitoring of the system. Risks identified by our management will be analyzed on the basis of likelihood and impact, and will be properly followed up and mitigated and rectified by our Group and reported to our Directors.

To monitor the ongoing implementation of risk management policies and corporate governance measures after the [**REDACTED**], we have adopted or will continue to adopt, among other things, the following risk management measures.

- Our Audit Committee oversees the overall risks associated with our business operations, including: (i) reviewing policies with respect to accounting and risk management; (ii) discussing with management major issues regarding adequacy and effectiveness of procedures and internal controls over financial reporting; (iii) monitoring our compliance with respect to the legal and regulatory policies; and (iv) reporting regularly to our Board.

- Our management is responsible for: (i) formulating and updating our compliance management policy and objectives; (ii) implementing policies with respect to risk management; (iii) providing guidance regarding compliance with regulations and policies; (iv) identifying and evaluating major risk management issues; (v) supervising and inspecting operating

activities of subsidiaries and departments to ensure compliance; (vi) organizing and providing compliance trainings; (vii) providing guidance on our risk management approach to the relevant departments; (viii) reviewing and handling the reporting of wrongdoing; and (ix) reporting to our risk management leader on our material risks.

- The relevant departments in our Company are responsible for implementing our risk management policy and carrying out our day-to-day risk management practice. In order to formalize risk management across our Group and set a common level of transparency and risk management performance, the relevant departments shall: (i) gather information about the risks relating to their operation or function; (ii) conduct risk assessments, which include the identification, prioritization, measurement and categorization of all key risks that could potentially affect their achievement of objectives; (iii) prepare a risk management report annually; (iv) monitor the key risks relating to their operation or function; (v) develop and implement the risk mitigation plans for the key risks identified; and (vi) develop and maintain an appropriate mechanism to facilitate the application of our risk management framework.

Internal Control

Our Board of Directors is responsible for ensuring that the Group establishes and maintains an appropriate and effective internal control system so that reasonable assurance can be provided regarding the Group's achievement of objectives relating to operations, reporting and compliance, especially the safeguarding of our Shareholders' investment at all times. Our internal control policies set out the key control measures of various business processes in order to assist the management in communicating the intended practices of these processes and the staff in adopting consistent practices.

Below is a summary of the internal control policies, measures and procedures we have implemented or plan to implement:

- We have adopted various measures and procedures regarding our business operations, and we provide training about these measures and procedures to new employees. We also constantly monitor the implementation of these measures and procedures.

- We maintain strict anti-bribery and anti-corruption policies. Such policies explicitly require that all employees comply with any applicable anti-corruption laws, regulations and policies and that all employees are prohibited from making illegal or improper payments to any government official, including hospital staff, either on their own or via third parties. Additionally, our employees are not allowed to offer or give gifts, hospitality or anything of value that are not an appropriate type or beyond the value limit set forth in the policy. We closely monitor to ensure that our sales and marketing personnel comply with applicable promotion and advertising requirements. Under our firm-wide whistle-blowing policy, we make our

internal reporting channel open and available for our employees to report, on an anonymous basis, any noncompliance incidents and acts, including bribery and corruption.

- With respect to the data and privacy protection, the original medical documents relating to test samples in clinical trials are kept by the clinical trial institutions. To improve the privacy protection and data security from our end, the clinical data is de-identified by the clinical trial institutions, ensuring that it does not contain any privacy information of the trial participants. We do not collect participants' personal data, nor are we responsible for clinical data management.

- Our Directors (who are responsible for monitoring the corporate governance of our Group), with help from our Compliance Advisor, will also periodically review our compliance status with all relevant laws and regulations after the [**REDACTED**].

- We have established an Audit Committee, which is to (i) make recommendations to our Directors on the appointment and removal of external auditors; and (ii) review the financial statements and render advice in respect of financial reporting, as well as oversee internal control procedures of our Group.

Our Directors believe that such controls and measures are sufficient and adequate to avoid the occurrence of corruption, bribery, or other improper conduct of our employees. During the Track Record Period and up to the Latest Practicable Date, we were not subject to any government investigation or litigation with respect to claims or allegations of monetary and non-monetary bribery activities, and to the best knowledge of our Directors, none of our employees were involved in any bribery or kickback arrangements.