UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
FORM 10-K

(Mark One)

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended: December 31, 2025

or

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from to .
Commission File No.: 001-34705

Codexis, Inc.

(Exact name of registrant as specified in its charter)

Delaware	**71-0872999**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**
200 Penobscot Drive, Redwood City, California	**94063**
(Address of principal executive offices)	**(Zip Code)**

Registrant's telephone number, including area code: (650) 421-8100

Securities Registered Pursuant to Section 12(b) of the Act:

Title of Each Class:	Trading Symbol(s):	Name of Each Exchange on which Registered:
Common Stock, par value $0.0001 per share	CDXS	The Nasdaq Global Select Market

Securities Registered Pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☐ No ☒

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act:

Large accelerated filer	☐	Accelerated filer	☐
Non-accelerated filer	☒	Smaller reporting company	☒
		Emerging growth company	☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C.7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☐

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements. ☐

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b). ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes ☐ No ☒

The aggregate market value of voting and non-voting common stock held by non-affiliates of Codexis as of June 30, 2025 was approximately $133.4 million based upon the closing price reported for such date on the Nasdaq Global Select Market.

As of March 5, 2026, there were 90,869,349 shares of the registrant's Common Stock, par value $0.0001 per share, outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's Definitive Proxy Statement to be filed with the Commission pursuant to Regulation 14A in connection with the registrant's 2026 Annual Meeting of Stockholders (the "2026 Proxy Statement"), to be filed subsequent to the date hereof, are incorporated by reference into Part III of this Report. Such Definitive Proxy Statement will be filed with the Securities and Exchange Commission not later than 120 days after the conclusion of the registrant's fiscal year ended December 31, 2025. Except with respect to information specifically incorporated by reference in this Form 10-K, the 2026 Proxy Statement is not deemed to be filed as part of this Form 10-K.

Codexis, Inc.
Annual Report on Form 10-K
For the Year Ended December 31, 2025

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SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

The following discussion and analysis in this Annual Report on Form 10-K should be read in conjunction with our audited consolidated financial statements and the related Notes that appear elsewhere in this Annual Report on Form 10-K. This Annual Report on Form 10-K contains "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), particularly in Part I, Item 1: "Business," Part I, Item 1A: "Risk Factors" and Part II, Item 7: "Management's Discussion and Analysis of Financial Condition and Results of Operations." These statements are often identified by the use of words such as "may," "will," "can," "expect," "believe," "anticipate," "intend," "could," "should," "estimate" or "continue," and similar expressions or variations. All statements other than statements of historical fact could be deemed forward-looking, including, but not limited to: any projections of financial information or performance; any statements about historical results that may suggest trends for our business; any statements of the plans, strategies, and objectives of management for future operations; any statements of expectation or belief regarding future events, commercial partnerships, technology developments, our products and product platforms, product sales, revenues, expenses, liquidity, cash flow, commercial reach, market growth rates or enforceability of our intellectual property rights and related litigation expenses; and any statements of assumptions underlying any of the foregoing. Such forward-looking statements are subject to risks, uncertainties and other factors that could cause actual results and the timing of certain events to differ materially from future results expressed or implied by such forward-looking statements. Accordingly, we caution you not to place undue reliance on these statements.

For a discussion of the factors that could cause actual results to differ materially from our forward-looking statements, see the discussion on risk factors that appear in Part I, Item 1A: "Risk Factors" of this Annual Report on Form 10-K and other risks and uncertainties detailed in this and our other reports and filings with the U.S. Securities and Exchange Commission ("SEC").

The forward-looking statements in this Annual Report on Form 10-K represent our views as of the date of this Annual Report on Form 10-K. We anticipate that subsequent events and developments will cause our views to change. However, while we may elect to update these forward-looking statements at some point in the future, we have no current intention of doing so except to the extent required by applicable law. You should, therefore, not rely on these forward-looking statements as representing our views as of any date subsequent to the date of this Annual Report on Form 10-K.

SUMMARY RISK FACTORS

Our business is subject to numerous risks and uncertainties, including those described in Part I, Item 1A: "Risk Factors" in this Annual Report on Form 10-K. You should carefully consider these risks and uncertainties when investing in our common stock. The principal risks and uncertainties affecting our business include the following:

- We have a history of net losses and we may not achieve or maintain profitability.
- We have invested significant resources to enable enzymatic nucleic acid synthesis, which is based on novel ideas and technologies that are largely unproven. Failure to validate performance at scale, demonstrate regulatory acceptance, or overcome other challenges with the new technologies could impede customer adoption and our revenues.
- Therapeutics development programs are highly regulated and expensive, and our enzyme products are complex and subject to quality control requirements. The ability of our customers, future customers or collaborators, including any company developing RNAi and other RNA-based therapeutics, to advance product candidates utilizing our products to clinical trials and to ultimately receive regulatory approvals is highly uncertain.
- We believe that our products are exempt from Food, Drug, and Cosmetic Act ("FDCA") requirements, but FDA or other regulators may disagree and find that our products are subject to such requirements.
- We are dependent on a limited number of customers.
- Some of our product supply agreements with customers, if in place, have finite duration, may not be extended or renewed and generally do not require the customer to purchase any particular quantity or quantities of our products.
- Our efforts to prosecute, maintain, protect and/or defend our intellectual property rights may not be successful.
- The demand for our products depends in part on our customers' research and development and the clinical and market success of their products. Our business, financial condition, and results of operations may be harmed if our customers spend less on, or are less successful in, these activities. In addition, customer spending may be affected by, among other things, general market and economic conditions beyond our control.

- If we are unable to develop and commercialize new technologies and products for the pharmaceutical and life science tools markets, our business and prospects will be harmed.
- A reduction or delay in government funding of research and development for our customers may adversely affect our business.
- With respect to customers purchasing our products for use in manufacturing APIs for which they have exclusivity due to patent protection, the termination or expiration of such patent protection and any resulting generic competition may materially and adversely affect our revenues, financial condition or results of operations.
- The services and offerings we provide are highly complex, and if we encounter problems providing the services or support required, our business could suffer.
- Any productivity issues or higher-than-expected costs at our facilities could result in material and adverse impacts on our financial condition and results of operations.
- We are dependent on a limited number of third-party contract manufacturers for large scale production of substantially all of our enzymes.
- We are dependent on our collaborators, and our failure to successfully manage these relationships could prevent us from developing and commercializing many of our products and achieving or sustaining profitability.
- As a result of our refined focus on certain programs and business lines, we may fail to capitalize on other opportunities that may be more profitable or for which there is a greater likelihood of success.
- We may receive limited revenue or no future value from certain of our existing license agreements.
- The timing of our customer orders and related product revenue recognition is unpredictable and may cause our operating results to vary significantly from quarter to quarter, which could adversely affect our stock price.
- We use hazardous materials in our business, and we must comply with environmental laws and regulations. Any claims relating to improper handling, storage or disposal of these materials or noncompliance of applicable laws and regulations could be time-consuming and costly and could adversely affect our business and results of operations.
- We may need additional capital in the future in order to expand our business.
- Even if our customers, future customers or collaborators obtain regulatory approval for any products utilizing our enzymes, such products will remain subject to ongoing regulatory requirements, which may result in significant additional expense.
- If we or our customers fail to comply with certain healthcare laws, including fraud and abuse laws, we could face substantial penalties and our business, results of operations, financial condition and prospects could be adversely affected.
- Third parties may claim that we are infringing, violating or misappropriating their intellectual property rights, which may subject us to costly and time-consuming litigation and prevent us from developing or commercializing our technology, products or services.
- We may be involved in lawsuits to protect or enforce our intellectual property rights, which could be expensive, time-consuming and unsuccessful.
- If our biocatalysts, or the genes that code for our biocatalysts, are stolen, misappropriated or reverse engineered, others could use these biocatalysts or genes to produce competing products.
- We are subject to anti-takeover provisions in our certificate of incorporation and bylaws and under Delaware law that could delay or prevent an acquisition of our company, even if the acquisition would be beneficial to our stockholders.
- Market and economic conditions may negatively impact our business, financial condition, and share price.
- International trade policies, including tariffs, sanctions and trade barriers, may adversely affect our business.
- Business interruptions resulting from disasters or other disturbances could delay us in the process of developing our products and could disrupt our sales. Our business continuity and disaster recovery plans may not adequately protect us from a serious disaster or other disturbance.

PART I

ITEM 1. BUSINESS

COMPANY OVERVIEW

We are a leading provider of technology solutions to improve therapeutics manufacturing. We focus on impacting the manufacturing process by using our proprietary CodeEvolver® directed evolution technology platform to discover, develop, enhance, and commercialize novel, high-performance enzymes and other classes of proteins. Enzymes are naturally occurring biological molecules critical to almost all biochemical reactions. They can be precisely engineered and optimized for specific functions, and to have particular characteristics, such as an ability to survive environments in which natural enzymes cannot, or to perform (bio)chemical transformations that are different than those for which they naturally evolved. We employ our technology and expertise to enhance the properties and performance of enzymes to drive pivotal improvements in manufacturing of complex therapeutics across two key areas: our ECO synthesis manufacturing platform and our small molecule pharma biocatalysis business.

ECO Synthesis manufacturing platform

Our ECO Synthesis® manufacturing platform is comprised of enzymatic tools and processes that are designed to enable large-scale manufacture of RNA interference ("RNAi") therapeutics. We use the CodeEvolver platform technology to develop enzymes for the synthesis of RNAi therapeutics in production processes that deliver improvements, including purity, yield, and manufacturing efficiency. In November 2024, we presented data at the TIDES Europe conference demonstrating the successful end-to-end enzymatic synthesis of an entire commercially approved small interfering ribonucleic acid ("siRNA") therapeutic asset with the ECO Synthesis manufacturing platform. In addition to using full enzymatic sequential synthesis, adding one nucleotide at a time to synthesize the two strands from beginning to end, we demonstrated synthesis of the same siRNA asset using three other routes utilizing enzymatic ligation with our double-stranded RNA ("dsRNA") ligase, which can stitch together fragments of chemically and/or enzymatically synthesized RNA to form the full siRNA drug structure. For the three other routes, our data highlighted that full-length oligonucleotides of equal quality and yields were obtained whether the fragments were made with enzymes or by traditional solid phase oligonucleotide synthesis ("SPOS") (current standard production route for oligonucleotide manufacturing). At the end of 2024, we completed the build out of our ECO Synthesis Innovation Lab, a facility where our ECO Synthesis manufacturing platform is deployed to synthesize gram-scale quantities of a customer's desired siRNA construct suitable for pre-clinical testing. In addition, the infrastructure allows us to provide process development, analytical method development and other manufacturing process optimization which is required to enable the siRNA to proceed to clinical-stage manufacturing and testing. In 2025, we successfully manufactured non-good manufacturing practice ("GMP")-grade siRNA drug substance for customers in our Innovation Lab under development services contracts. We also entered into partnerships with three large-scale contract development and manufacturing organizations ("CDMOs") to evaluate our ECO platform of enzymatic tools and processes to ultimately synthesize GMP-grade siRNA drug substance for our customers. In each of these agreements, we are currently in the feasibility testing stage and expect to advance at least one of these partnerships, including initiating a technology transfer to that organization, in 2026. We believe these relationships to be a vital extension of our strategy to be a technology solutions provider for our customers. Through these arrangements, our customers will have access to proven, large-scale commercial manufacturers who are familiar with our process, and who can then offer a seamless manufacturing scale-up of our customers' products. We expect to expand our enzymatic tools and process offerings as we further enhance the ECO Synthesis platform to address the overall market needs for scalable and sustainable RNAi manufacturing.

Small molecule pharma biocatalysis

In our small molecule pharma biocatalysis business, we utilize our CodeEvolver technology platform to develop optimized enzymes that are used by some of the world's largest pharmaceutical companies to improve the efficiency and productivity of their manufacturing processes for small molecule therapeutics. Our unique enzymes drive improvements such as higher yields, increased purity, reduced energy usage and waste generation, all of which lead to improved efficiency and reduced costs in small-molecule manufacturing.

History and Core Technology

We are a pioneer in harnessing computational technologies to drive biology advancements. Since 2002, we have made substantial investments in the development of our proprietary CodeEvolver technology platform, the primary source of our competitive advantage for our business. The CodeEvolver technology platform has the power to transform the performance of an enzyme, tailoring it for a specific application and/or process. Using powerful machine learning tools and sophisticated molecular, cellular, and bioanalytical workflows, we can design and screen libraries of thousands of variants. Content-rich libraries screened under real-world conditions can yield dense and valuable datasets, which, when data-mined, allow us to optimize multiple parameters in parallel. The resulting evolved variants often have a combination of enhanced properties, such as increased activity, specificity, and stability under desired conditions, and improved manufacturability in the production host. These enhanced properties provide differentiated technical performance in the target application and can provide our customers increased value in the commercial deployment of their products.

Key Strategic Focus Areas

ECO Synthesis Manufacturing Platform

ECO Synthesis Overview

A key strategic priority for Codexis is the advancement and commercialization of our ECO Synthesis manufacturing platform, which is designed to enable the commercial scale manufacture of RNAi therapeutics. As of December 31, 2025, there were eight approved siRNA therapeutics on the market in the United States, primarily targeting rare disease indications. However, there are hundreds of RNAi therapeutic assets in development, including 41 assets in Phase 2 and Phase 3 clinical trials. As we move through 2026, the RNAi pipeline is pivoting from rare conditions to high-prevalence diseases like Alzheimer's, hyperlipidemia and hypertension. We expect worldwide demand for RNAi therapeutics to grow significantly as RNAi therapeutic assets progress through clinical development and are commercially approved.

The current industry standard for manufacturing RNAi therapeutics is a well-established, chemical-based method SPOS utilizing phosphoramidite chemistry. This approach has existed for more than forty years and works effectively for small-scale manufacturing required during the discovery stage of clinical development. However, SPOS and phosphoramidite chemistry face multiple limitations in the context of commercial-scale manufacture of RNAi therapeutics. This approach will require significant infrastructure and capital investment to meet the anticipated future growth in demand for RNAi therapeutics. SPOS and phosphoramidite chemistry are also currently limited to single-digit kilogram synthesis batch sizes, and present challenges around quality control and scalability. Further, chemical synthesis requires large volumes of acetonitrile, a highly-flammable, organic solvent with high waste disposal costs, to facilitate the reaction environment necessary to produce RNAi therapeutics. As additional RNAi therapeutic candidates are approved for disease indications with higher prevalence, we believe using traditional SPOS and phosphoramidite chemical synthesis for commercial scale production will become prohibitively expensive, time-intensive, and challenging for many drug developers seeking to produce enough drug substance to address these larger patient populations.

We believe that the ECO Synthesis manufacturing platform presents several advantages to potentially address the limitations of SPOS and phosphoramidite chemistry. Our platform can be integrated within existing manufacturing facilities and utilizes equipment currently available in the industry, potentially eliminating much of the infrastructure investment required for SPOS and phosphoramidite chemistry. ECO Synthesis is not constrained by the same process limitations as SPOS, and, by design, has the potential to manufacture tens to a hundred kilograms of high-purity RNA per run, with a closed-loop system intended to increase volumetric reagent efficiency which enables large batch synthesis. Finally, our process is aqueous based, mitigating the need for high volumes of acetonitrile, significantly decreasing chemical waste streams, and reducing heavy disposal and purification costs.

ECO Synthesis Innovation Lab

We completed the build-out of our ECO Synthesis Innovation Lab at the end of 2024. This facility allows us to optimize the development and scaling of a manufacturing process of a customer's specific siRNA asset before completing the technology transfer to a CDMO partner for GMP-grade production of drug substance to supply the customer's clinical trials and eventual commercialization. It is also designed to enable the manufacture of non-GMP-grade RNAi therapeutic material in sufficient quantities to support customers' preclinical development.

The ECO Synthesis manufacturing platform is a set of enzymatic tools and processes that are used together to manufacture siRNA. With this platform, we work with our customers to optimize the manufacturing of the customer's asset. This platform produces enzymatically synthesized RNAi sequences, and the conjugation of tissue targeting moieties such as GalNAc, onto an RNA strand (which is a common modification included on RNAi therapeutics to assist with targeted tissue delivery) and to ligate (connect) RNAi sequences together. All of these capabilities are used to create a full-length and completed RNAi therapeutic asset.

Our goal is to be a value-added technology solutions provider to pharmaceutical innovators. Many of our potential clients seek expertise in areas that they cannot develop on their own, but seek to partner with companies who provide expertise in manufacturing. Through our ECO Synthesis platform, we offer a partnership approach to drug manufacturing. The services we provide include:

- *Method Development and Analytics.* Customers require qualified methods to measure and ensure purity of their siRNA construct before going into the clinic.

- *Manufacturing*. Process development and optimization are necessary to produce GLP material of a customer's siRNA asset for preclinical testing prior to filing an IND and entering the clinic. We provide these services through our ECO Synthesis Innovation Lab. We are exploring expanding our services to include GMP manufacturing, which would enable us to provide clinical grade material to our clients for at least Phase 1 clinical studies.

- *Ongoing Support*. We offer ongoing regulatory and Chemistry, Manufacturing and Controls ("CMC") documentation throughout preclinical studies and clinical trials to support our clients' regulatory filings and interactions with the United States Food and Drug Administration ("FDA").

Potential Commercial Opportunity of RNAi Manufacturing

We believe we have significant competitive advantages to successfully enter RNAi manufacturing with our proprietary ECO Synthesis manufacturing platform, largely stemming from synergies with our pharma biocatalysis expertise in terms of technical knowledge and commercial reach. Many of our current customers are also developing RNAi therapeutics. We believe their familiarity with our ability to engineer and scale complex enzymes is a significant commercial advantage for our ECO Synthesis manufacturing platform. However, there are also key differences of this platform compared to our existing pharma biocatalysis business. Pharma biocatalysis generally requires custom enzyme engineering projects specific to a single therapeutic asset, which involves significant time and resource investment from Codexis. By contrast, the ECO Synthesis manufacturing platform could be applicable to many pharmaceutical and CDMO customers and has the potential to manufacture multiple different RNAi therapeutic assets with the same set of enzymes and processes. Further, the potential scalability of our solution is differentiated from phosphoramidite chemistry, which is limited in batch size and requires high volumes of toxic solvent. We believe that the ECO Synthesis manufacturing platform could enable CDMOs and drug developers to scale production of RNA therapeutics with significantly less capital expenditure for production infrastructure and as a result, could potentially command significantly better economic terms than the current revenues for pharma biocatalysis enzymes.

Our business model for the ECO Synthesis manufacturing platform involves several points of interaction with our customers:

- *ECO Synthesis Innovation Lab.* We provide contract development and manufacturing services at smaller scale non-GMP conditions in our ECO Synthesis Innovation Lab. These activities are typically governed by development agreements which include fees for process development, process optimization, analytical method development and qualification, CMC documentation and small-scale manufacturing of siRNA drug substance.

- *ISO 9001 certified manufacturing facility*. We provide purified enzymes and immobilized purified enzymes from our non-GMP manufacturing facility. These products are core components of the ECO Synthesis manufacturing platform and they are released according to a full specification from our quality control labs. All of these operations occur within our Quality Management System which is certified as ISO 9001.

- *Future services from our GMP manufacturing facility*. In November 2025, we signed a lease for a GMP manufacturing facility in Hayward, California. We are currently working on designs to retrofit this facility to manufacture RNAi therapeutics for our customers in quantities sufficient for Phase 1 and potentially Phase 2 clinical trials. We believe this facility to be of high strategic importance to our ECO Synthesis business, capturing more of the economics of the drug supply chain, and also offering a GMP tech transfer to very large scale operations once customers make the decision to advance their drug candidates to larger scale clinical trials or commercial launch. We anticipate beginning construction in the fall of 2026, with the facility in full production capability by the end of 2027.

Pharma Biocatalysis

Pharmaceutical companies are driven to identify reliable, cost-effective, and sustainable manufacturing process improvements to produce both their new drug candidates and their existing products, while not impacting drug safety and efficacy. Many of our customers are large pharmaceutical companies who partner with us to develop engineered enzymes for use as biocatalysts, meeting precisely defined criteria. Their goals are to improve the efficiency, productivity and sustainability of their manufacturing processes.

As of December 31, 2025, we sold enzymes as biocatalysts to pharmaceutical manufacturers for 18 therapeutic drugs that are currently approved for commercial sales.

We currently sell these enzymes, that have already been engineered and installed in a customer's commercial manufacturing process at multi-kilograms to metric tons per annum scale.

In addition to these larger volumes of enzymes that are sold for our customers' ongoing commercial requirements, we also sell smaller quantities of engineered enzymes for use in a customer's clinical-stage manufacturing. As of December 31, 2025, Codexis is selling enzymes to pharmaceutical manufacturers for 15 drug candidates currently in Phase 2 and Phase 3 clinical trials, or to customers working to convert to an enzymatic manufacturing process for drugs that have been commercially approved.

In addition to the sale of enzymes, we also offer contracted research and development partnerships to our customers. These research and development activities are typically governed by collaboration agreements, which often contain research and development fees and intellectual property provisions, under which we screen and/or engineer enzymes for customers in connection with their process development efforts. In these collaborations, we typically receive consideration in the form of one or more of the following: upfront payments, milestone payments, payments for screening and engineering, followed by fees for manufacturing scale-up and supply of enzymes, licensing fees and/or royalties as the customer's product commercializes. In November 2025, we announced we were reducing our emphasis on seeking new projects in our small-molecule biocatalysis business, primarily due to reduced pricing opportunity of the broader enzyme market. We continue to provide these services to existing and prospective customers who have challenging products that require unique solutions, where we can engineer more value-added and differentiated enzymes.

We also have licensed our CodeEvolver technology platform to pharmaceutical companies to help them develop custom-designed enzymes that are highly optimized for efficient manufacturing processes. To date, we have entered into platform technology licensing agreements with each of GlaxoSmithKline Intellectual Property Development Limited, a subsidiary of GlaxoSmithKline plc ("GSK"), Merck & Co., Inc. ("Merck & Co") and Novartis Pharma AG ("Novartis").

Other Differentiated Enzymes

In addition to RNAi manufacturing and pharma biocatalysis applications, we have also applied our CodeEvolver technology platform to develop customized enzymes for customers across other molecular biology applications, such as template dependent mRNA manufacturing, next generation sequencing, diagnostic testing and DNA oligonucleotide synthesis.

In December 2024, we entered into a license agreement whereby Pfizer obtained a license to make a specific Codexis enzyme for use in the manufacture of Pfizer's products. As part of the agreement, Pfizer utilized remaining credit from a supply agreement between the parties toward the upfront fee. Under the terms of the license agreement, Codexis is eligible to receive development and sales-based milestone payments based upon the future use of the enzyme in drug substance manufacturing.

In September 2024, we entered into a new non-exclusive commercial and manufacturing license agreement with Alphazyme LLC ("Alphazyme"). In connection with this new agreement, we terminated all prior agreements with Alphazyme, including licenses for the Codex HiFi DNA Polymerase, Codex HiTemp Reverse Transcriptase, Codex HiRev Isothermal Polymerase and other enzymes that were in development directed towards genomics and diagnostics applications prior to our strategic shift announced in July 2023. Under the terms of the new agreement, we are eligible to receive sales-based royalties.

In December 2023, we entered into an exclusive licensing agreement with Aldevron LLC ("Aldevron"), a global leader in the custom development and manufacture of plasmid DNA, RNA and proteins for the biotech industry, whereby Aldevron licensed our Codex HiCap RNA Polymerase. Under the terms of the deal, Aldevron received global manufacturing and commercialization rights to the Codex HiCap RNA Polymerase in exchange for payments for near-term technical milestones, along with commercial milestones and sales-based royalties for research use only material as well as GMP material.

In March 2022, we entered into a Stock Purchase Agreement with seqWell, Inc. ("seqWell"), a privately held life sciences company, pursuant to which we purchased 1,000,000 shares of seqWell's Series C preferred stock for $5.0 million. In March 2023, we entered into a Master Collaboration Agreement and Research Agreement with seqWell (the "seqWell Agreement"), pursuant to which we provided research and experimental screening and enzyme engineering activities in exchange for compensation in the form of additional shares of seqWell's common stock. We received 205,279 shares of seqWell's common stock from research and development services with seqWell in the year ended December 31, 2024. In addition to our initial equity investment and the shares we have received under the seqWell Agreement, in September 2023, we purchased an additional 88,256 shares of seqWell's Series C-1 preferred stock and 44,128 common stock warrants for $0.4 million. In line with our strategy relating to non-core Life Sciences assets, in January 2025 we sold assets that were developed under the seqWell Agreement to seqWell in exchange for the right to receive a cash payment upon future events and a warrant to purchase seqWell's common stock exercisable upon future events, and terminated the seqWell Agreement.

In June 2020, we entered into a Master Collaboration and Research Agreement with Molecular Assemblies, Inc. ("MAI") (the "MAI Agreement"), under which we provided enzyme evolution services and sold enzymes to MAI in the field of DNA synthesis. Between 2020 and 2024, in connection with the execution of the MAI Agreement and via separate purchases, we acquired shares of MAI's Series A and B preferred stock. On January 28, 2025, Maravai LifeSciences, Inc. ("Maravai"), a global provider of life science reagents and services to researchers and biotech innovators, announced its acquisition of intellectual property and relevant assets from MAI. In January 2025, MAI assigned the MAI Supply Agreement to Maravai in connection with the sale of its related assets to Maravai.

Biotherapeutics Divestitures

Our biotherapeutic product candidates, which were in clinical and preclinical development, were discovered using our proprietary CodeEvolver technology platform and ranged from orally delivered enzymes to engineered transgenes for delivery as gene therapies. The most advanced of our biotherapeutics programs was CDX-7108, a potent lipase intended for use as a potential treatment for exocrine pancreatic insufficiency ("EPI"), which was being developed under a Strategic Collaboration Agreement with Nestlé Health Science ("Nestlé") (the "Nestlé SCA"). As part of the Nestlé SCA and a related development agreement, we and Nestlé completed a Phase 1 clinical trial of CDX-7108. In December 2023, we entered into an acquisition agreement with Nestlé (the "Acquisition Agreement"), pursuant to which we agreed to assign our interests in CDX-7108 (including associated agreements and intellectual property rights) to Nestlé and terminate the Nestlé SCA and development agreement. Under the terms of the Acquisition Agreement, Nestlé is solely responsible for the continued development and commercialization of CDX-7108, including all associated costs, with Codexis retaining an economic interest in the program through an upfront payment, future potential milestone payments and net-sales based royalties.

In July 2024, we entered into an asset purchase agreement with Crosswalk Therapeutics ("Crosswalk") for our investigational Fabry and Pompe disease compounds, both of which were previously part of our collaboration agreement with Takeda. Under the terms of the agreement with Crosswalk, we are eligible to receive future development and commercial milestone payments in addition to a low-to-mid single-digit percentage net sales-based royalty.

Additionally, in April 2024 we entered into an asset acquisition agreement with another private biotherapeutics company under which we divested assets related to our investigational homocystinuria and maple syrup urine disease programs, and in June 2024, we entered into an asset sale agreement under which we divested assets related to our programs for the GLB1, GM1, and SGSH genes, and our investigational AAV capsid technology. Under these agreements, Codexis is eligible to receive milestone and earnout payments.

INTELLECTUAL PROPERTY

Our success depends in large part on our ability to protect our proprietary technology, products and services under patent, copyright, trademark and trade secret laws. We also rely heavily on confidentiality and non-disclosure and other contractual agreements for further protection of our proprietary technology, products and services. Protection of our proprietary rights, titles and interests is important for us to offer our customers and partners proprietary technology, products and services that are not available from our competitors, and to exclude our competitors from practicing technology that we have developed or exclusively licensed from other parties. For example, our ability to successfully supply innovator pharmaceutical manufacturers as customers depends on our ability to supply proprietary enzymes or methods for making pharmaceutical intermediates or APIs that are not available from our competitors. Likewise, in the generic pharmaceutical area, protection of our proprietary technology, products and services directed to our enzymes and methods of producing pharmaceutical products, through patent or trade secret laws or other legal protections is important for us and our customers to maintain a lower cost production advantage over competitors.

As of December 31, 2025, we owned or controlled approximately 1,600 active issued patents and pending patent applications in the United States and in various foreign jurisdictions, many of which are directed to our enabling technologies and specific methods and products that support our business in the pharmaceutical, biotherapeutics, and oligonucleotide synthesis markets, including related to our ECO Synthesis platform. As of December 31, 2025, our patents and pending patent applications, if issued, have terms that expire between 2026 and approximately 2046. Our United States ("U.S.") patents and pending patent applications directed to the CodeEvolver technology platform developed internally by us have terms that expire between 2029 and approximately 2034. It is possible that some U.S. patents and patent applications (if issued) may be entitled to patent term extensions and/or patent term adjustments, which would extend the protection beyond these expiration dates. It is also possible that some patents and patent applications (if issued) in other jurisdictions will be entitled to additional patent terms. Our current intellectual property rights also include patents, trademarks, copyrights, software and certain assumed contracts that we acquired from Maxygen, Inc. ("Maxygen") in October 2010, which are associated with directed evolution technology, known as the MolecularBreeding technology platform developed by Maxygen. The intellectual property rights and other related assets that we acquired from Maxygen continue to be subject to existing exclusive and non-exclusive license rights granted by Maxygen to third parties. We continue to file new patent applications in our business areas of interest, for which terms generally extend 20 years from the non-provisional filing date in the United States.

As of December 31, 2025, we owned approximately 92 trademark registrations in the United States and foreign jurisdictions, as well as various common law trademarks. These include, but are not limited to: Codexis, Codex, CodeEvolver, ECO Synthesis, MOSAIC, SAGE, MicroCYP, MCYP, ProSAR, Unlock the Power of Proteins, the Codexis Protein Engineering Experts logo, Strategist, Continuity, Ameli, Forager, Analogene, Harvester, Atoms, Riptide, APS and a Codexis design mark (i.e., the stylized Codexis logo), as well as a pending registration application for ecoRNA.

COMPETITION

We face differing forms of competition in pharmaceutical biocatalysis and RNAi therapeutics manufacturing, as set forth below.

ECO Synthesis Manufacturing Platform for RNAi Therapeutics

We market our ECO Synthesis manufacturing platform and contract development services through our ECO Synthesis Innovation Lab to drug sponsors developing RNAi therapeutics. SPOS using phosphoramidite chemistry is the current and long-established industry standard for the manufacture of RNAi therapeutics, examples including antisense oligonucleotides, siRNA, RNA aptamers, and guide RNA. CDMOs in this space, such as Agilent Technologies, have made significant capital investment to expand their RNA manufacturing capabilities using phosphoramidite chemistry. In addition, CDMOs and large pharmaceutical companies are seeking to make incremental improvements to phosphoramidite chemistry, including the development of ligation-based approaches, liquid-phase synthesis, and solvent recycling technologies. However, many drug developers and CDMOs are already exploring the use of enzymatic technology, including our dsRNA ligase, in their manufacturing processes due to the potential benefits around increased yield, purity, and efficiency. Additionally, there are opportunities for us to collaborate with CDMO partners to enable the manufacture of siRNA material at a greater scale than is currently possible within Codexis facilities. In 2026, we anticipate signing and announcing additional partnerships with CDMOs to provide enzymatically synthesized GMP-grade siRNA material to drug developer customers in the near term.

There are also multiple early-stage competitors who are pursuing fully enzymatic approaches to the manufacture of RNA, including EnPlusOne Biosciences, a private startup company, and a UK-based consortium led by the Centre for Process Innovation ("CPI") and consisting of multiple academic and research organizations, including The University of Manchester and large pharmaceutical companies, including AstraZeneca plc and Novartis.

Pharma Biocatalysis

We market our enzyme biocatalyst products and services to manufacturers of small molecule pharmaceutical intermediates and APIs. Our primary competitors in that market are companies marketing either conventional, non-enzymatic catalysts or alternative biocatalyst products and services, or from full-service CDMOs offering conventional chemistry and biocatalytic approaches to the production of APIs. We also face competition from existing in-house technologies (both biocatalysis and conventional chemistries) within our client and potential client companies. The principal methods of competition and competitive differentiation in this market are price, product quality and biocatalyst performance, including manufacturing yield, safety and environmental benefits and speed of product delivery. Pharmaceutical manufacturers that use biocatalytic processes can face competition from manufacturers that use more conventional processes and/or manufacturers that are based in regions (such as India and China) with lower operating, regulatory, safety and environmental costs.

We also compete with companies developing and marketing conventional catalysts including, for example, Solvias AG, BASF, Johnson-Matthey and Takasago International Corporation.

The market for supplying enzymes for use in pharma biocatalysis is fragmented. There is competition from large industrial enzyme companies, as well as subsidiaries of larger contract research/contract manufacturing organizations, such as DSM Firmenich, Cambrex Corporation, Lonza, WuXi STA and Almac Group Ltd. Some fermentation pathway design companies, such as Ginkgo Bioworks, whose traditional focus has been to design microorganisms that express small molecule chemicals, could extend into designing organisms that express enzymes. There is also competition in the enzyme customization and optimization area from several smaller companies, such as BRAIN AG, evoxx technologies GmbH, c-LEcta GmbH, Enzymicals AG, and Enzymaster.

Core Technology

We are a leader in the field of enzyme engineering to create novel enzymes, and our work across pharma biocatalysis and the ECO Synthesis manufacturing platform relies on our core technology. We are aware that other companies, organizations and persons have developed technologies that appear to have some similarities to our patented proprietary CodeEvolver technologies. For example, we are aware that other companies, including Ginkgo Bioworks, BRAIN, and Enzymicals AG, have alternative methods for obtaining and generating genetic diversity or use mutagenesis techniques to produce genetic diversity. Some companies, including Biomatter Designs, Arzeda, and Enzymaster, leverage predictive computational algorithms to guide enzyme engineering efforts. In addition, academic institutions such as the California Institute of Technology, University of Washington, University of Manchester, and the Austrian Centre of Industrial Biotechnology are also working in this field. This field is highly competitive with companies and academic and research institutions actively seeking to develop technologies that could be competitive with our technologies.

Technological developments by others may result in our products and technologies, as well as products manufactured by our customers using our biocatalysts, becoming obsolete. We monitor publications and patents that relate to directed molecular evolution, as well as computational design and modeling tools, to be aware of developments in the field and evaluate appropriate courses of action in relation to these developments.

Many of our competitors have substantially greater manufacturing, financial, research and development, personnel and marketing resources than we do. As a result, our competitors may be able to develop competing and/or superior technologies and processes, and compete more aggressively and sustain that competition over a longer period of time than we could. Our technologies and products may be rendered obsolete or uneconomical by technological advances or entirely different approaches developed by one or more of our competitors.

CUSTOMERS

We rely on certain key customers for a significant portion of our total revenues and our accounts receivable balances. For the year ended December 31, 2025, one customer accounted for approximately 51% of our total revenues. As of December 31, 2025, three customers accounted for approximately 40%, 14% and 13% of our accounts receivable balances. For more information, see Note 15, “Segment, Geographical and Other Revenue Information” in the Notes to the Consolidated Financial Statements set forth in Item 8 of this Annual Report on Form 10-K.

OPERATIONS

Our corporate headquarters are located in Redwood City, California and provide general administrative support to our business and are the center of our research, development and business operations. We have limited internal manufacturing capacity at our headquarters in Redwood City. For our pharma biocatalysis business, we expect to rely on third-party manufacturers for commercial production of our biocatalysts for the foreseeable future. Our in-house manufacturing is dedicated to producing both Codex biocatalyst panels and kits and enzymes for use by our customers in pilot scale and clinical production. We also supply initial commercial quantities of biocatalysts for use by our collaborators to produce pharmaceutical intermediates and manufacture biocatalysts that we sell. For the ECO Synthesis manufacturing platform, our ECO Synthesis Innovation Lab is located within our corporate headquarters and is designed to supply non-GMP-grade material in sufficient quantities to support customers’ preclinical development. We expect to partner with one or more CDMOs for bulk GMP-grade siRNA production to supply customers’ clinical trials and beyond in the near term. In November 2025, we signed a lease for a GMP manufacturing facility in Hayward, California. We are currently working on designs to retrofit this facility to manufacture RNAi therapeutics for our customers in quantities sufficient for Phase 1 and potentially Phase 2 clinical trials

As part of the restructuring of our business announced in July 2023, we consolidated operations to our Redwood City headquarters and discontinued investment in biotherapeutics. In September 2023, we announced that we had entered into an agreement for the assignment and assumption of the lease for our San Carlos, California facility. For additional information on the San Carlos facility, see Note 13, “Commitments and Contingencies” in the Notes to the Consolidated Financial Statements set forth in Item 8 of this Annual Report on Form 10-K.

Our research and development operations include efforts directed towards engineering biocatalysts, bioprocess development, cellular engineering, biocatalyst screening, metabolites, strain improvement, fermentation development and process engineering. We conduct enzyme evolution, enzyme production development, microbial bioprocess development, cellular engineering, microbial evolution and process engineering evaluations and design primarily at our headquarters in Redwood City, California. Manufacturing of our enzymes is conducted primarily in four locations: at our in-house facility in Redwood City, California and at third-party contract manufacturing organizations ("CMOs"): Lactosan GmbH & Co. KG ("Lactosan") in Kapfenberg, Austria, ACS Dobfar S.p.A. ("ACSD") (formerly known as DPhar S.p.A.) in Anagni, Italy, and Sekisui Diagnostics (UK) Ltd. ("Sekisui") in Maidstone, United Kingdom. Generally, we perform smaller scale manufacturing in-house and outsource larger scale manufacturing, representing a large percentage of our production of novel enzymes, to CMOs.

GOVERNMENT REGULATION

Our enzymes are used by pharmaceutical and biopharmaceutical companies in the manufacture of their drug or biologic product candidates and finished products. In the United States, the manufacture, distribution, marketing, and sale of drug products and the provision of certain services for development-stage pharmaceutical and biotechnology products are subject to extensive ongoing regulation by the United States Food and Drug Administration ("FDA"), the United States Department of Health and Human Services ("HHS"), the Centers for Medicare and Medicaid Services ("CMS"), state boards of pharmacy, state health departments, various accrediting bodies, and similar regulatory authorities in other countries, including laws and regulations governing bribery, fraud, kickbacks, and false claims. The costs associated with complying with the various applicable federal, state, local, national, and international laws and regulations could be significant, and the failure to comply with such legal requirements could have an adverse effect on our results of operations and financial condition. The FDA extensively regulates, among other things, the research, development, testing, manufacture, quality control, import, export, safety, effectiveness, labeling, packaging, storage, distribution, record keeping, approval, advertising, promotion, marketing, post-approval monitoring, and post-approval reporting of drug and biologic products under the Federal Food, Drug and Cosmetic Act, its implementing regulations and other laws, including, in the case of biologics, the Public Health Service Act. Our third-party contractors, collaborators, and customers will be required to navigate the various preclinical, clinical and commercial approval requirements of the governing regulatory agencies of the countries in which they wish to conduct studies or seek approval or licensure of their product candidates, which may include regulatory inspections for compliance with current good manufacturing practices ("cGMP"). The process of obtaining regulatory approvals and the subsequent compliance with applicable federal, state, local and foreign statutes and regulations require the expenditure of substantial time and financial resources. This regulatory scrutiny results in our customers imposing rigorous quality and other requirements on us as their supplier through supplier qualification processes and customer contracts and specifications.

The process required by the FDA before a drug or biologic may be marketed in the United States generally involves the following:

- completion of preclinical laboratory tests and animal studies performed in accordance with the FDA's Good Laboratory Practice regulations;
- submission to the FDA of an Investigational New Drug Application ("IND"), which must become effective before clinical trials in the United States may begin;
- performance of adequate and well-controlled human clinical trials to establish the safety and potency of the product candidate for each proposed indication, conducted in accordance with the FDA's good clinical practice ("GCP") regulations;
- preparation and submission to the FDA of a new drug application ("NDA") or biologics license application ("BLA") after completion of all pivotal clinical trials;
- satisfactory completion of an FDA inspection of the manufacturing facility or facilities at which the product is produced to assess compliance with cGMP regulations and to assure that the facilities, methods and controls are adequate to preserve the drug's continued safety, purity and potency, and of selected clinical investigation sites to assess compliance with Good Clinical Practices, or GCPs; and
- FDA review and approval of the NDA or BLA prior to any commercial marketing, sale or distribution of the product.

Any products manufactured or distributed pursuant to FDA approvals are subject to pervasive and continuing regulation by the FDA, including, among other things, requirements relating to record-keeping, reporting of adverse experiences, periodic reporting, product sampling and distribution, and advertising and promotion of the product. Drug and biologic manufacturers and other entities involved in the manufacture and distribution of approved drugs are required to register their establishments with the FDA and certain state agencies and are subject to periodic unannounced inspections by the FDA and certain state agencies for compliance with cGMPs and other laws and regulations. Changes to the manufacturing process are strictly regulated, and, depending on the significance of the change, may require prior FDA approval before being implemented. Accordingly, manufacturers must continue to expend time, money and effort in the area of production and quality control to maintain compliance with cGMPs and other aspects of regulatory compliance. The FDA may withdraw or limit approval if compliance with regulatory requirements and standards is not maintained or if problems occur after the product reaches the market.

Later discovery of previously unknown problems with a product, including adverse events of unanticipated severity or frequency, or with manufacturing processes, or failure to comply with regulatory requirements, may result in restrictions on the marketing or manufacturing of the product, complete withdrawal of the product from the market or product recalls; fines, warning letters, or untitled letters; clinical holds on ongoing or planned clinical studies; refusal of the FDA to approve pending applications or supplements to approved applications, or suspension or revocation of approvals; product seizure or detention, or refusal to permit the import or export of products; consent decrees, corporate integrity agreements, debarment or exclusion from federal healthcare programs; mandated modification of promotional materials and labeling and the issuance of corrective information; the issuance of safety alerts, Dear Healthcare Provider letters, press releases and other communications containing warnings or other safety information about the product; or injunctions or the imposition of civil or criminal penalties.

Environmental, Health and Safety Regulations

We are responsible for ensuring an environmentally responsible, safe, and healthy workplace. We are required to abide by all relevant county, state and federal agency regulations for environmental, health and safety requirements and have the necessary procedure, permits, and licenses in place to operate accordingly. Our contracts with outside suppliers and vendors require compliance with applicable laws and regulations.

Data Privacy and Security Laws

Numerous state, federal and foreign laws, regulations and standards govern the collection, use, access to, confidentiality and security of health-related and other personal information, and could apply now or in the future to our operations or the operations of our partners. In the United States, numerous federal and state laws and regulations, including data breach notification laws, health information privacy and security laws and consumer protection laws and regulations govern the collection, use, disclosure, and protection of health-related and other personal information. In addition, certain foreign laws govern the privacy and security of personal data, including health-related data. Privacy and security laws, regulations, and other obligations are constantly evolving, may conflict with each other to complicate compliance efforts, and can result in investigations, proceedings, or actions that lead to significant civil and/or criminal penalties and restrictions on data processing.

HUMAN CAPITAL RESOURCES

As of December 31, 2025, we had 146 full-time employees and part-time employees worldwide. Of these employees, 45 were engaged in research and development, 50 were engaged in operations and quality control and 51 were engaged in selling, general and administrative activities. None of our employees are represented by a labor union or covered by a collective bargaining agreement. Supported by our annual employee survey, we believe our relationship with our employees to be generally good. Our scientists, bioinformatics experts and other professionals work collaboratively as interdisciplinary teams to unlock and advance technological innovation.

Compensation, benefits and development

Our goal is to attract, motivate and retain talent with a focus on encouraging performance, promoting accountability and adhering to our company values. We offer competitive compensation and benefit programs including a company-matched 401(k) Plan, an Employee Stock Purchase Plan (“ESPP”), stock options for eligible employees, health savings and flexible spending accounts, paid time off, education and training programs, and employee assistance programs.

Diversity, equity and inclusion

We are proud of our commitment to diversity and foster an inclusive work environment that supports our global workforce and the communities we serve. We recruit the best people for the job regardless of gender, ethnicity or other protected traits and it is our policy to not only comply with all laws applicable to discrimination in the workplace, but to promote a safe and equitable environment for all employees. Our diversity, equity and inclusion principles are also reflected in our employee training and policies. Our executive leadership team reviews these policies regularly.

Health and safety

We are committed to maintaining a safe and healthy workplace for our employees. Our policies and practices are intended to protect our employees and the surrounding communities in which we operate.

CORPORATE & AVAILABLE INFORMATION

We were incorporated in Delaware in January 2002 as a wholly-owned subsidiary of Maxygen, Inc. We commenced independent operations in March 2002, after licensing core enabling technology from Maxygen, Inc. Our principal corporate offices are located at 200 Penobscot Drive, Redwood City, California 94063 and our telephone number is (650) 421-8100. Our internet address is www.codexis.com. The information on, or that can be accessed through, our website is not incorporated by reference into this Annual Report on Form 10-K or any other filings we make with the U.S. Securities and Exchange Commission (the "SEC").

We make available on or through our website certain reports and amendments to those reports that we file with, or furnish to, the SEC in accordance with the Exchange Act. These include our Annual Reports on Form 10-K, our Quarterly Reports on Form 10-Q and our Current Reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act. We make this information available on or through our website free of charge as soon as reasonably practicable after we electronically file the information with, or furnish it to, the SEC. Copies of this information may be obtained at the SEC website at www.sec.gov. The contents of these websites are not incorporated into this filing. Further, the references to website URLs are intended to be inactive textual references only.

"Codexis," the Codexis logo, ECO Synthesis, and other trademarks or service marks of Codexis, Inc., appearing in this Annual Report on Form 10-K are the property of Codexis, Inc. This Annual Report on Form 10-K contains additional trade names, trademarks and service marks of others, which are the property of their respective owners. Solely for convenience, trademarks and trade names referred to in this Annual Report on Form 10-K may appear without the ® or ™ symbols.

ITEM 1A. RISK FACTORS

You should carefully consider the risks described below together with the other information set forth in this Annual Report on Form 10-K, which could materially affect our business, financial condition or future results. The risks described below are not the only risks facing our company. Risks and uncertainties not currently known to us or that we currently deem to be immaterial also may materially adversely affect our business, financial condition and/or operating results.

Risks Related to Our Business and Strategy

We have a history of net losses and we may not achieve or maintain profitability.

We have incurred net losses since our inception, including losses of $44.0 million, $65.3 million, and $76.2 million for the years ended December 31, 2025, 2024, and 2023, respectively. As of December 31, 2025, we had an accumulated deficit of $606.8 million. If we are unable to continue to successfully develop and commercialize products in our pharma biocatalysis business, increase sales of existing products and services, develop and commercialize our ECO Synthesis manufacturing platform, develop new products or services, or otherwise expand our business, whether through new or expanded collaborations or other products and services, our net losses may increase and we may never achieve profitability. In addition, some of our agreements, including the agreements with GlaxoSmithKline plc ("GSK"), Merck Sharp & Dohme ("Merck"), Novartis Pharma AG ("Novartis"), Nestlé Health Science ("Nestlé"), Aldevron LLC, Roche Sequencing Solutions, Inc., Crosswalk Therapeutics and Alphazyme LLC, provide for milestone payments, usage payments, and/or future royalty or other payments, which we will only receive if we and/or our collaborators develop and commercialize products or achieve technical milestones. We also intend to continue to fund the development of additional proprietary performance enzyme products and advance new technologies like our ECO Synthesis manufacturing platform. There can be no assurance that any of these products or services will become commercially viable or that we will ever achieve profitability on a quarterly or annual basis. If we fail to achieve profitability, or if the time required to achieve profitability is longer than we anticipate, we may not be able to continue our business. Even if we do achieve profitability, we may not be able to sustain or increase profitability on a quarterly or annual basis.

Therapeutics development programs are highly regulated and expensive, and our enzyme products are complex and subject to quality control requirements. The ability of our customers, future customers or collaborators, including any company developing RNAi and other RNA-based therapeutics, to advance product candidates utilizing our products to clinical trials and to ultimately receive regulatory approvals is highly uncertain.

We develop enzyme products, including our ECO Synthesis manufacturing platform, that are used by our customers, and that may be used by our future customers or collaborators in connection with their biotherapeutic product candidates. The successful development of biotherapeutic candidates involves many risks and uncertainties, requires long timelines and may lead to uncertain results.

Our customers are subject to extensive regulations by the FDA and similar regulatory authorities in other countries for conducting clinical trials and commercializing products for therapeutic, vaccine or diagnostic use. These regulations result in our customers imposing quality requirements on us for the manufacture of our enzyme products through supplier qualification processes and customer contracts and specifications.

To market a biologic or drug product in the United States, our customers, future customers or collaborators must undergo the following process required by the FDA:

- completion of extensive preclinical laboratory tests and preclinical animal studies, certain of which must be performed in accordance with the FDA's Good Laboratory Practice requirements;
- submission to the FDA of an Investigational New Drug Application, which must become effective before human clinical studies may begin in the United States;
- approval by an independent institutional review board or ethics committee representing each clinical site before the clinical study may be initiated at the site;
- performance of adequate and well-controlled human clinical studies in accordance with Good Clinical Practice requirements to establish the safety, purity and potency (or efficacy) of the product candidate for each proposed indication;
- preparation of and submission to the FDA of a New Drug Application ("NDA") or Biologics License Application ("BLA") after completion of all clinical studies;

- potential review of the product candidate by an FDA advisory committee;
- satisfactory completion of an FDA pre-approval inspection of the manufacturing facilities where the product candidate is produced to assess compliance with current Good Manufacturing Practice ("cGMP") requirements;
- FDA review and approval of a BLA or NDA prior to any commercial marketing or sale of the product in the United States; and
- any post-approval requirements, if applicable.

The regulatory approval processes of the FDA and comparable foreign authorities are lengthy, time consuming and the results are inherently unpredictable. If our customers, future customers or collaborators are ultimately unable to obtain regulatory approval for their biotherapeutic product candidates utilizing our enzyme products, our business may be harmed. In addition, if our customers, future customers or collaborators fail to comply with applicable FDA or other regulatory requirements at any time during the drug development process, clinical testing, the approval process or after approval, they may become subject to administrative or judicial penalties, including the FDA's refusal to approve a pending application, withdrawal of an approval, warning letters, product recalls and additional enforcement actions, any of which may have an adverse effect on our financial condition.

We believe that our products are exempt from FDCA requirements, but FDA or other regulators may disagree and find that our products are subject to such requirements.

We believe our enzyme products are exempt from compliance with the FDCA and the FDA's GMP implementing regulations, as our products are further processed and not incorporated into final drug or biologic products by our customers and as we do not make claims related to our products' safety or effectiveness. Our products are currently manufactured following the voluntary quality standards of ISO 9001:2015, and we have collaborations with a number of CDMOs, and anticipate signing and announcing additional partnerships to provide enzymatically synthesized, GMP-grade siRNA to customers in the near term. Our collaboration with CDMOs may not come to fruition and, even if it does, may not scale up as anticipated. Even if the scale up plans succeed, we or the CDMO may incur delays in production or have insufficient product for customers. And, in the event we, or our suppliers, produce products that fail to comply with voluntary quality standards or GMP standards imposed by customers, we may incur delays in fulfilling orders, write-downs or other losses, damages resulting from product liability claims and harm to our reputation.

In the future, our products could become subject to more onerous regulation, or the FDA could disagree with our assessment that our enzyme products are exempt from cGMP regulations. In addition, the FDA could conclude that the products we provide to our customers are actually subject to the pharmaceutical, drug or biologic quality-related regulations for manufacturing, processing, packing or holding of drugs, biologics, or finished pharmaceuticals, and could take enforcement action against us, including requiring us to stop distribution of our products until we are in compliance with applicable regulations, which would reduce our revenue, increase our costs and adversely affect our business, prospects, results of operations and financial condition.

We are dependent on a limited number of customers.

Although we continue to expand our customer base, our current revenues are derived from a limited number of key customers. For the years ended December 31, 2025 and 2024, customers that each individually contributed 10% or more of our total revenue accounted for 51% of our total revenues. We expect a limited number of customers to continue to account for a significant portion of our revenues for the foreseeable future. This customer concentration increases the risk of quarterly fluctuations in our revenues and operating results. The loss or reduction of business from one or a combination of our significant customers could materially adversely affect our revenues, financial condition and results of operations.

Some of our product supply agreements with customers, if in place, have finite duration, may not be extended or renewed and generally do not require the customer to purchase any particular quantity or quantities of our products.

Our product supply agreements with customers generally have a finite duration, may not be extended or renewed and generally do not require the customer to purchase any particular quantity or quantities of our products. Additionally, some customers order our products on a quote and purchase order basis under standard terms and conditions, with no guarantee of future orders. While our products are not considered commodities and may not be easily substituted for by our customers, particularly when our products are used in the manufacture of active pharmaceutical ingredients, our customers may nevertheless terminate or fail to renew their product supply agreements with us or significantly curtail their purchases thereunder under certain circumstances. We are working to develop new relationships with existing or new customers, but despite these efforts we may not, at the time that any of our existing product supply agreements expire or are terminated, or purchases thereunder curtailed, have other contracts in place generating similar or material revenue. Any such expiration, termination or reduction could materially adversely affect our revenues, financial condition and results of operations. For the year ended December 31, 2025, we derived a majority of our product revenue from these product supply agreements.

The demand for our products depends in part on our customers' research and development and the clinical and market success of their products. Our business, financial condition, and results of operations may be harmed if our customers spend less on, or are less successful in, these activities. In addition, customer spending may be affected by, among other things, general market and economic conditions beyond our control.

Our customers are engaged in research, development, production, and marketing of pharmaceutical products and intermediates. The amount our customers spend on research, development, production, and marketing, as well as the outcomes of such research, development, and marketing activities, have a large impact on our sales and profitability, particularly the amount our customers choose to spend on our offerings. Available resources, the need to develop new products, and consolidation in the industries in which our customers operate may have an impact on such spending. Our customers and potential customers finance their research and development spending from private and public sources. A reduction in available financing for and spending by our customers, for these reasons or because of continued unstable or unpredictable economic and marketplace conditions, could have a material adverse effect on our business, financial condition, and results of operations. If our customers are not successful in attaining or retaining product sales due to market conditions, reimbursement issues, or other factors, our results of operations may be materially adversely affected.

If we are unable to develop and commercialize new products for the pharmaceutical and life science tools markets, our business and prospects will be harmed.

We plan to continue to innovate new technologies for use in the pharmaceutical and life science tools markets. These efforts are subject to numerous risks, including the following:

- customers in these markets may be reluctant to adopt new manufacturing processes that use our enzymes;
- we may be unable to successfully develop the enzymes or manufacturing processes for our products in a timely and cost-effective manner, if at all;
- we may face difficulties in transferring the developed technologies to our customers and the contract manufacturers that we may use for commercial scale production of intermediates and enzymes in these markets;
- the biotherapeutics products that use our tools may not receive regulatory approval or be commercially viable;
- the contract manufacturers that we may use may be unable to scale their manufacturing operations to meet the demand for these products and we may be unable to secure additional manufacturing capacity;
- customers may not be willing to purchase these products for these markets from us on favorable terms, if at all;
- we may face product liability litigation, unexpected safety or efficacy concerns and product recalls or withdrawals;
- our customers' products may experience adverse events or face competition from new products, which would reduce demand for our products;
- we may face pressure from existing or new competitive products; and
- we may face pricing pressures from existing or new competitors, some of which may benefit from government subsidies or other incentives.

A reduction or delay in government funding of research and development for our customers may adversely affect our business.

A portion of our revenue is derived from customers whose funding is partially dependent on both the level and timing of funding from government sources, which funding can be difficult to forecast. Government funding of research and development is subject to the political process, which is inherently fluid and unpredictable. Our revenue may be adversely affected if our customers delay or limit purchases as a result of uncertainties surrounding the approval of government budget proposals, including reduced allocations to government agencies that fund research and development activities. If government proposals to reduce or eliminate budgetary deficits result in reduced allocations to government agencies that fund research and development activities, our results of operations may be materially adversely affected.

With respect to customers purchasing our products for use in manufacturing APIs for which they have exclusivity due to patent protection, the termination or expiration of such patent protection and any resulting generic competition may materially and adversely affect our revenues, financial condition or results of operations.

With respect to customers purchasing our products for the manufacture of API, or to lead to the manufacture of API, for which exclusivity due to patent protection has or is about to expire, we can expect that the quantity of our products sold to such customers for such products may decline as generic competition for the API increases. While we anticipate that we may, in some cases, also be able to sell products to these generic competitors for the manufacture of these APIs, or lead to the manufacture of these APIs, the overall effect on our revenues, financial condition and results of operations could be materially adverse.

The services and offerings we provide are highly complex, and if we encounter problems providing the services or support required, our business could suffer.

The offerings we provide are highly complex, due in part to strict regulatory requirements and the inherent nature of services we provide, including exacting manufacturing processes. A failure of our quality control systems in our facilities could cause problems in connection with facility operations for a variety of reasons, including equipment malfunction, viral contamination, failure to follow specific manufacturing instructions, protocols and standard operating procedures, problems with raw materials or environmental factors. In addition, any failure to meet required quality standards may result in our failure to timely deliver products to our customers which, in turn, could damage our reputation for quality and service. Any such incident could, among other things, lead to increased costs, lost revenue, reimbursement to customers for lost drug substances, damage to and possibly termination of customer relationships, time and expense spent investigating and remediating the cause and, depending on the cause, similar losses with respect to other manufacturing runs. In addition, such issues could subject us to litigation, the cost of which could be significant. These risks will be intensified in connection with the build-out of our Innovation Lab, through which we expect to continue scaling specific manufacturing processes of our customers' specific therapeutic assets and, eventually, expect to manufacture GLP-grade RNAi therapeutic material in sufficient quantities to support customers' preclinical development.

Any productivity issues or higher-than-expected costs at our facilities could result in material and adverse impacts on our financial condition and results of operations.

As we continue to scale up our manufacturing processes in connection with the completed build-out of our Innovation Lab and our anticipated partnership with a CDMO to provide enzymatically synthesized, GMP-grade siRNA to customers, we may face manufacturing capacity constraints or higher-than-expected costs at our facilities, including our Innovation Lab. There can be no assurance that revenue lost due to productivity issues or capacity constraints will be recovered on expected timeframes or at all. If we are unsuccessful in remedying any productivity issues at our facilities or those of our CDMO, if we are unable to recover revenue from unproduced batches when expected or at all, or if costs at our facilities are higher than expected, we may experience material and adverse impacts on our financial condition and results of operations.

We are dependent on a limited number of third-party contract manufacturers for large scale production of substantially all of our enzymes.

We manufacture our enzymes primarily in four locations: our in-house facility in Redwood City, California, and at three third-party contract manufacturing organizations ("CMOs"): Lactosan in Kapfenberg, Austria, ACS Dobfar S.p.A. ("ACSD") (formerly known as DPhar S.p.A.) in Anagni, Italy, and Sekisui Diagnostics in Maidstone, United Kingdom. Generally, we perform smaller scale manufacturing in-house and outsource the larger scale manufacturing to these contract manufacturers. We have limited internal capacity to manufacture enzymes. As a result, we are dependent upon the performance and capacity of third-party manufacturers for the larger scale manufacturing of the enzymes used in our pharmaceutical and life sciences businesses.

Accordingly, we face risks of difficulties with, and interruptions in, performance by third-party manufacturers, the occurrence of which could adversely impact the availability, launch and/or sales of our enzymes in the future. Enzyme manufacturing capacity limitations at our third-party manufacturers and manufacturing delays could negatively affect our business, reputation, results of operations and financial condition. The failure of any contract manufacturer to supply us our required volumes of enzyme on a timely basis, or to manufacture our enzymes in compliance with our specifications or applicable quality requirements or in volumes sufficient to meet demand, would adversely affect our ability to sell pharmaceutical and complex chemicals products, could harm our relationships with our customers or collaborators and could negatively affect our revenues and operating results. We may be forced to secure alternative sources of supply, which may be unavailable on commercially acceptable terms, and could cause interruptions or delays in our ability to deliver products to our customers, increase our costs and decrease our profit margins.

We currently have supply agreements in place with Lactosan, ACSD and Sekisui. In the absence of a supply agreement, a contract manufacturer will be under no obligation to manufacture our enzymes and could elect to discontinue their manufacture at any time. If we require additional manufacturing capacity and are unable to obtain it in sufficient quantity, we may not be able to increase our product sales, or we may be required to make substantial capital investments to build that capacity or to contract with other manufacturers on terms that may be less favorable than the terms we currently have with our suppliers. If we choose to build our own additional manufacturing facility, it could take several years or longer before our facility is able to produce commercial volumes of our enzymes. Any resources we expend on acquiring or building internal manufacturing capabilities could be at the expense of other potentially more profitable opportunities. In addition, if we contract with other manufacturers, we may experience delays of several months in qualifying them, which could harm our relationships with our customers or collaborators and could negatively affect our revenues or operating results.

Furthermore, as we currently,and may in the future, rely on foreign CMOs, such foreign CMOs may be subject to U.S. legislation, sanctions, trade restrictions and other foreign regulatory requirements which could increase the cost or reduce the supply of material available to us, delay the procurement or supply of such material or have an adverse effect on our ability to secure significant commitments from governments to purchase our potential therapies. For example, the U.S. BIOSECURE Act, which was enacted in December 2025, prohibits federal agencies from procuring or using any biotechnology equipment or services from “biotechnology companies of concern”, or entering into, extending, or renewing any contracts with entities that use such biotechnology equipment or services from “biotechnology companies of concern”. Congress has interpreted a “biotechnology company of concern” as an entity that is under the control of a foreign adversary and that poses a risk to national security based on its research or multiomic data collection (e.g., collection of genomic information). While the U.S. BIOSECURE Act has a grandfathering period of five years for existing contracts, and has carveouts for manufacture of drugs for supply under Medicaid and Medicare Part B, subject to the Secretary of Veterans Affairs’ discretion, the impact of the U.S. BIOSECURE Act on the biotechnology industry is uncertain. This and similar laws could have the potential to restrict the ability of biopharmaceutical companies like us to purchase services or products from, or otherwise collaborate with, certain biotechnology companies “of concern” without losing the ability to contract with, or otherwise receive funding from, the U.S. government. It is possible some of our contractual counterparties could be impacted by this or future legislation.

We are dependent on our collaborators, and our failure to successfully manage these relationships could prevent us from developing and commercializing many of our products and achieving or sustaining profitability.

Our ability to maintain and manage collaborations in our markets is fundamental to the success of our business. We currently have license agreements, research and development agreements, supply agreements and/or distribution agreements with various collaborators. We may have limited or no control over the amount or timing of resources that any collaborator is able or willing to devote to our partnered products or collaborative efforts. Any of our collaborators may fail to perform its obligations. These collaborators may breach or terminate their agreements with us or otherwise fail to conduct their collaborative activities successfully and in a timely manner. Further, our collaborators may not develop products arising out of our collaborative arrangements or devote sufficient resources to the development, manufacture, marketing or sale of these products. If any of these events occur, especially if they occur in our collaborations with GSK, Merck or Novartis, or if we fail to maintain our agreements with our collaborators, we may not be able to commercialize our existing and potential products or grow our business or generate sufficient revenues to support our operations, we may not receive contemplated milestone payments and royalties under the collaboration, and we may be involved in litigation. Our collaboration opportunities could be harmed and our financial condition and results of operations could be negatively affected if:

- we or our collaborators do not achieve our research and development objectives under our collaboration agreements in a timely manner, or at all;

- we develop products and processes or enter into additional collaborations that conflict with the business objectives of our other collaborators;
- our collaborators and/or our contract manufacturers do not receive the required regulatory and other approvals necessary for the commercialization of the applicable product;
- we are unable to manage multiple simultaneous collaborations;
- our collaborators or licensees are unable or unwilling to implement or use the technology or products that we provide or license to them;
- our collaborators become competitors of ours or enter into agreements with our competitors;
- our collaborators become unable or less willing to expend their resources on research and development or commercialization efforts due to general market conditions, their financial condition or other circumstances beyond our control; or
- our collaborators experience business difficulties, which could eliminate or impair their ability to effectively perform under our agreements.

Even after collaboration relationships expire or terminate, some elements of the collaboration may survive. For instance, certain rights, licenses and obligations of each party with respect to intellectual property and program materials may survive the expiration or termination of the collaboration.

Finally, our business could be negatively affected if any of our collaborators or suppliers undergoes a change of control or were to otherwise assign the rights or obligations under any of our agreements.

We have invested significant resources to enable enzymatic nucleic acid synthesis, which is based on novel ideas and technologies that are largely unproven. Failure to validate performance at scale, demonstrate regulatory acceptance, or overcome other challenges with the new technologies could impede customer adoption and our revenues.

Our ECO Synthesis manufacturing platform is designed to enable the commercial-scale manufacture of RNAi and other RNA-based therapeutics through an enzymatic route. While we believe enzymatic nucleic acid synthesis will offer certain improvements over phosphoramidite chemistry, including with respect to required infrastructure investments, batch size limitations and waste disposal challenges, the enzymatic route is novel and has not yet been commercialized. As such, we may be faced with unforeseen results, delays and setbacks, in addition to the other foreseeable risks and uncertainties associated with the ongoing development of the ECO Synthesis manufacturing platform and other products.

Other challenges with a new technology such as our ECO Synthesis manufacturing platform include having an unknown and unproven development and regulatory path, uncertainty around the value that we can realize from the technology, uncertainty around the timeline for adoption of the technology by customers, and uncertainty around our ability to secure supply of necessary materials or to manufacture at GMP at scale and partner with customers on manufacturing and utilizing the technology. We may also be unable to achieve the expected benefits of the ECO Synthesis manufacturing platform in a timely manner, or at all.

There can be no assurance that these events we may experience in the future related to enzymatic synthesis will not cause significant delays or unanticipated costs, or that such development problems can be solved. Any delay or difficulties in developing and commercializing our ECO Synthesis manufacturing platform or any of our other current or future products could adversely affect our business and operations.

Competitors and potential competitors who have greater resources and experience than we do may develop products and technologies that make ours obsolete or may use their greater resources to gain market share at our expense.

The biocatalysis and performance enzyme industries and each of our target markets are characterized by rapid technological change. Our future success will depend on our ability to maintain a competitive position with respect to technological advances. In addition, as we enter new markets, we will face new competition and will need to adapt to competitive factors that may be different from those we face today.

We face competitive challenges related to our ECO Synthesis manufacturing platform. The current industry standard for manufacturing RNAi therapeutics is a well-established, chemical-based method, solid-phase oligonucleotide synthesis, utilizing phosphoramidite chemistry. Primary competitors in this space include CDMOs, such as Agilent Technologies, which has made significant capital investment to expand their RNA manufacturing capabilities using phosphoramidite chemistry. In addition, CDMOs and large pharmaceutical companies are seeking to make incremental improvements to phosphoramidite chemistry, including the development of ligation-based approaches, liquid-phase synthesis, and solvent recycling. There are also multiple early-stage competitors who are pursuing fully enzymatic approaches to the manufacture of RNA, including EnPlusOne Biosciences, a private startup company, and a UK-based consortium led by CPI and consisting of multiple academic and research organizations, including The University of Manchester and large pharmaceutical companies, including AstraZeneca plc and Novartis.

We are aware that other companies, including Ginkgo Bioworks, BRAIN Biotech AG, and Enzymicals AG, have alternative methods for obtaining and generating genetic diversity or use mutagenesis techniques to produce genetic diversity. Some companies, including Biomatter Designs, Arzeda Corp., and Enzymaster, leverage predictive computational algorithms to guide enzyme engineering efforts. In addition, academic institutions such as the California Institute of Technology, University of Washington, University of Manchester, and the Austrian Centre of Industrial Biotechnology are also working in this field. Technological development by others may result in our technology, products and services, as well as products developed by our customers using our biocatalysts, becoming obsolete.

Our primary competitors in the performance enzymes for the pharmaceutical products markets include (i) companies marketing either conventional, non-enzymatic processes or biocatalytic enzymes; (ii) manufacturers of pharmaceutical intermediates and APIs; and (iii) existing in-house technologies (both biocatalysts and conventional catalysts) within our client and potential client companies. The principal methods of competition and competitive differentiation in this market are price, product quality and performance, including manufacturing yield, safety and environmental benefits, and speed of delivery of product. Pharmaceutical manufacturers that use biocatalytic processes can face increased competition from manufacturers that use more conventional processes and/or manufacturers that are based in regions (such as India and China) with lower regulatory, safety and environmental costs.

The market for the manufacture and supply of APIs and intermediates is large with many established companies. These companies include many of our large innovator and generic pharmaceutical customers, such as Merck, GSK, Novartis, Pfizer Inc., Bristol-Myers Squibb, Kyorin Pharmaceutical Corporation, and Teva Pharmaceuticals, which have significant internal research and development efforts directed at developing processes to manufacture APIs and intermediates. The processes used by these companies include classical conventional organic chemistry reactions, chemo catalytic reactions, biocatalytic reactions or combinations thereof. Our biocatalytic based manufacturing processes must compete with these internally developed routes. Additionally, we also face competition from companies developing and marketing conventional catalysts such as Solvias Inc., BASF and Takasago International Corporation.

The market for supplying enzymes is fragmented. There is competition from large industrial enzyme companies, such as Novozymes and DuPont, as well as subsidiaries of larger contract research/CMOs, such as DSM-Firmenich AG, Cambrex Corporation, Lonza Group, WuXi STA and Almac Group Ltd. Some fermentation pathway design companies, like Ginkgo Bioworks, whose traditional focus has been to design microorganisms that express small molecule chemicals, could extend into designing organisms that express enzymes. There is also competition in the enzyme customization and optimization area from several smaller companies, such as BRAIN Biotech AG, Arzeda Corp., and c-LEcta GmbH.

Our ability to compete successfully in any of these markets will depend on our ability to develop proprietary products that reach the market in a timely manner and are technologically superior to and/or are less expensive than other products on the market. Many of our competitors have substantially greater production, financial, research and development, personnel and marketing resources than we do. They also started developing products earlier than we did, which may allow them to establish blocking intellectual property positions or bring products to market before we can. In addition, certain of our competitors may also benefit from local government subsidies and other incentives that are not available to us. As a result, our competitors may be able to develop competing and/or superior technologies and processes, compete more aggressively and sustain that competition over a longer period of time than we could. Our technologies and products may be rendered obsolete or uneconomical by technological advances or entirely different approaches developed by one or more of our competitors. We cannot be certain that any products we develop in the future will compare favorably to products offered by our competitors or that our existing or future products will compare favorably to any new products that are developed by our competitors. As more companies develop new intellectual property in our markets, the possibility of a competitor acquiring patent or other rights that may limit our products or potential products increases, and could additionally lead to litigation.

Our limited resources relative to many of our competitors may cause us to fail to anticipate or respond adequately to new developments and other competitive pressures. This failure could reduce our competitiveness and market share, adversely affect our results of operations and financial position, and prevent us from obtaining or maintaining profitability.

Ethical, legal and social concerns about genetically engineered products and processes could limit or prevent the use of our technology, products and processes and limit our revenues.

Some of our technology, products and services, such as our ECO Synthesis manufacturing platform, are genetically engineered or involve the use of genetically engineered products or genetic engineering technologies. If we and/or our collaborators are not able to overcome the ethical, legal, and social concerns relating to genetic engineering, our technology, products and services may not be accepted. Any of the risks discussed below could result in increased expenses, delays, or other impediments to our programs or the public acceptance and commercialization of products and processes dependent on our technologies or inventions. Our ability to develop and commercialize one or more of our technologies, products, or processes could be limited by the following factors:

- public attitudes about the safety and environmental hazards of, and ethical concerns over, genetic research and genetically engineered products and processes, which could influence public acceptance of our technologies, products and processes;
- public attitudes regarding, and potential changes to laws governing ownership of, genetic material, which could harm our intellectual property rights with respect to our genetic material and/or discourage collaborators from supporting, developing, or commercializing our technology, products and services; and
- governmental reaction to negative publicity concerning genetically modified organisms, which could result in greater government regulation of genetic research and derivative products.

The subject of genetically modified organisms has received negative publicity, which has aroused public debate. This adverse publicity could lead to greater regulation and trade restrictions on imports of genetically altered products. The biocatalysts that we develop have significantly enhanced characteristics compared to those found in naturally occurring enzymes or microbes. While we produce our biocatalysts only for use in a controlled industrial environment, the release of such biocatalysts into uncontrolled environments could have unintended consequences. Any adverse effect resulting from such a release could have a material adverse effect on our business and financial condition, damage our reputation, and/or expose us to liability for any resulting harm.

As a result of our refined focus on certain programs and business lines, we may fail to capitalize on other opportunities that may be more profitable or for which there is a greater likelihood of success.

Because we have limited financial and managerial resources, we have recently focused our efforts on developing certain programs and business lines. As a result, we may forego or delay pursuit of business opportunities that later prove to have greater commercial potential. Further our resource allocation decisions may cause us to fail to capitalize on viable commercial products or profitable market opportunities. In addition, our spending on current and future research and development programs, such as our ECO Synthesis manufacturing platform, may not yield any commercially viable products. If we do not accurately evaluate the commercial potential or target market for a particular program or business line, our business and results of operations could be harmed.

We may receive limited revenue or no future value from certain of our existing license agreements.

While we have historically invested significant time and financial resources in the development of biotherapeutics assets, we have terminated investment in our biotherapeutics business and in other programs. As a result, it remains uncertain as to whether we will receive any value or benefit from these license agreements going forward.

The timing of our customer orders and related product revenue recognition is unpredictable and may cause our operating results to vary significantly from quarter to quarter, which could adversely affect our stock price.

A majority of our product revenue is derived from purchase orders or supply agreements and is recognized either at a point in time when the control of the product has been transferred to the customer or over time as the product is manufactured. The occurrence and timing of any transfer of control of product sold to our customers can be difficult to predict, and the recognition of revenue can vary widely depending on timing of product deliveries and satisfaction of other obligations. Product orders during any given period may be concentrated in relatively few contracts, intensifying the amplitude and irregularity of our revenue streams from quarter to quarter. In addition, the timing of contract or order commencements and completions may exacerbate the uneven pattern. Moreover, our revenue or operating expenses in one period may be disproportionately higher or lower relative to the others due to, among other factors, revenue fluctuations or increases in expenses as we invest in key technology development projects and improvements, develop and commercialize new and existing products and expand our business development and collaboration with new customers. If such fluctuations occur or if our operating results deviate from our expectations or the expectations of investors or securities analysts, our stock price could be adversely affected.

We use hazardous materials in our business, and we must comply with environmental laws and regulations. Any claims relating to improper handling, storage or disposal of these materials or noncompliance of applicable laws and regulations could be time consuming and costly and could adversely affect our business and results of operations.

Our research and development, manufacturing, and commercial processes involve the use of hazardous materials, including chemical, radioactive and biological materials, such as acetonitrile, which is used in some of our purification processes. Our operations also produce hazardous waste. We cannot eliminate entirely the risk of accidental contamination or discharge and any resultant injury from these materials. Federal, state, local and foreign laws and regulations govern the use, manufacture, storage, handling and disposal of, and human exposure to, these materials. We may face liability for any injury or contamination that results from our use or the use by third parties of these materials, and our liability may exceed our total assets. Although we believe that our activities comply in all material respects with environmental laws, there can be no assurance that violations of environmental, health and safety laws will not occur in the future as a result of human error, accident, equipment failure or other causes. Compliance with applicable environmental laws and regulations may be expensive, and the failure to comply with past, present or future laws could result in the imposition of fines, third party property damage, product liability and personal injury claims, investigation and remediation costs, the suspension of production or a cessation of operations, and our liability may exceed our total assets. Liability under environmental laws can be joint and several and without regard to comparative fault. Environmental laws could become more stringent over time imposing greater compliance costs and increasing risks and penalties associated with violations, which could impair our research, development or production efforts and harm our business. In addition, we may be required to indemnify some of our customers or suppliers for losses related to our failure to comply with environmental laws, which could expose us to significant liabilities.

Our ability to use our net operating loss carryforwards to offset future taxable income may be subject to certain limitations.

In general, under Section 382 of the Internal Revenue Code of 1986, as amended (the "Code"), a corporation that undergoes an "ownership change" is subject to limitations on its ability to utilize its pre-change net operating loss carryforwards ("NOLs"), to offset future taxable income. If the Internal Revenue Service challenges our analysis that our existing NOLs are not subject to limitations arising from previous ownership changes, our ability to utilize NOLs could be limited by Section 382 of the Code. Future changes in our stock ownership, some of which are outside of our control, could result in an ownership change under Section 382 of the Code. Furthermore, our ability to utilize NOLs of companies that we may acquire in the future may be subject to limitations. For these reasons, we may not be able to utilize a material portion of the NOLs reflected in our financial statements, even if we attain profitability.

As a public reporting company, we are subject to rules and regulations established from time to time by the SEC and Nasdaq regarding our internal controls over financial reporting. We may not complete needed improvements to our internal controls over financial reporting in a timely manner, or these internal controls may not be determined to be effective, which may adversely affect investor confidence in our company and, as a result, the value of our common stock and your investment.

We are subject to the rules and regulations established from time to time by the SEC and Nasdaq. These rules and regulations require, among other things, that we establish and periodically evaluate procedures with respect to our internal controls over financial reporting. As part of these evaluations, material weaknesses in our internal controls over financial reporting may be identified. A material weakness is a deficiency, or a combination of deficiencies, in internal controls over financial reporting such that there is a reasonable possibility that a material misstatement of a company's annual or interim consolidated financial statements will not be prevented or detected on a timely basis. While we were able to remediate previously identified material weaknesses in our internal controls over financial reporting, there can be no guarantee we will not identify similar or other material weaknesses in the future and if such material weaknesses are identified, there can be no guarantee we would be able to remediate such material weaknesses. Any material weaknesses in our internal controls may adversely affect our ability to record, process, summarize and accurately report timely financial information and, as a result, our consolidated financial statements may contain material misstatements or omissions.

Reporting obligations as a public company place a considerable strain on our financial and management systems, processes and controls, as well as on our personnel. In addition, as a public company we are required to document and test our internal controls over financial reporting pursuant to Section 404 of the Sarbanes-Oxley Act so that our management can certify as to the effectiveness of our internal controls over financial reporting. While we currently qualify as a non-accelerated filer and smaller reporting company under the SEC rules, we are not required to include an attestation report on the effectiveness of our internal control over financial reporting from our independent registered public accounting firm. For any fiscal year in which we become an accelerated filer or large accelerated filer, our independent registered public accounting firm would be required to provide such an attestation report in our Annual Report on Form 10-K. If our management is unable to certify the effectiveness of our internal controls or if our independent registered public accounting firm cannot deliver a report attesting to the effectiveness of our internal controls over financial reporting, or if we identify or fail to remediate material weaknesses in our internal controls, we could be subject to regulatory scrutiny and a loss of public confidence, which could seriously harm our reputation and the market price of our common stock. In addition, if we do not maintain adequate financial and management personnel, processes and controls, we may not be able to manage our business effectively or accurately report our financial performance on a timely basis, which could cause a decline in our common stock price and may seriously harm our business.

We may need additional capital in the future in order to expand our business.

Our future capital requirements may be substantial, particularly as we continue to develop our business. Although we believe that, based on our current level of operations, our existing cash, cash equivalents and equity securities will provide adequate funds for planned ongoing operations, capital expenditures and working capital requirements for at least the next 12 months, we may need additional capital if our current plans and assumptions change. Our need for additional capital will depend on many factors, including the financial success of our performance enzyme business, our spending to develop and commercialize new and existing enzyme products and the amount of collaboration funding we may receive to help cover the cost of such expenditures, the effect of any acquisitions of other businesses, technologies or facilities that we may make or develop in the future, our spending on new market opportunities, including the ongoing commercialization of our ECO Synthesis manufacturing platform, scaling the ECO Synthesis manufacturing platform to GMP capability, and the filing, prosecution, enforcement and defense of patent claims. If our capital resources are insufficient to meet our capital requirements, and we are unable to enter into or maintain collaborations with partners that are able or willing to fund our development efforts or commercialize any enzyme products that we develop or enable, we will have to raise additional funds to continue the development of our technology and products and complete the commercialization of products, if any, resulting from our technologies.

In addition, we may choose to raise additional capital due to market conditions or strategic considerations, such as funding the ongoing commercialization of our ECO Synthesis manufacturing platform and a GMP manufacturing facility, even if we believe we have sufficient funds for our current or future operating plans. We may seek to obtain such additional capital through equity offerings, including pursuant to our Controlled Equity Offering℠ Sales Agreement (the "Cantor Sales Agreement") with Cantor Fitzgerald & Co., as sales agent ("Cantor"), debt financings, credit facilities and/or strategic collaborations. If future financings involve the issuance of equity securities, our existing stockholders would suffer dilution. In addition, under our Loan Agreement with Innovatus, we are subject to restrictive covenants that limit our ability to conduct our business and could be subject to additional covenants to the extent we seek other debt financing in the future. Strategic collaborations may also place restrictions on our business. We may not be able to raise sufficient additional funds on terms that are favorable to us, if at all. If we fail to raise sufficient funds and fail to generate sufficient revenues to achieve planned gross margins and to control operating costs, our ability to fund our operations, take advantage of strategic opportunities, develop products or technologies, or otherwise respond to competitive pressures could be significantly limited. If this happens, we may be forced to delay or terminate research or development programs or the commercialization of products resulting from our technologies, curtail or cease operations or obtain funds through collaborative and licensing arrangements that may require us to relinquish commercial rights, or grant licenses on terms that are not favorable to us. If adequate funds are not available, we will not be able to successfully execute our business plan or continue our business.

Covenants and other provisions in our Loan Agreement with Innovatus restrict our business and operations in many ways, and if we do not effectively manage our covenants, our financial conditions and results of operations could be adversely affected. In addition, our operations may not provide sufficient cash to meet the repayment obligations of our debt incurred under the Loan Agreement.

Pursuant to the Loan Agreement, Innovatus has been granted a security interest in substantially all of our assets. If an event of default occurs under the Loan Agreement, Innovatus may foreclose on its security interest and liquidate some or all of these assets, which would harm our business, financial condition and results of operations.

In the event of a default in connection with our bankruptcy, insolvency, liquidation, or reorganization, Innovatus would have a prior right to substantially all of our assets to the exclusion of our general unsecured creditors. Only after satisfying the claims of Innovatus and any unsecured creditors would any amount be available for our equity holders.

The pledge of these assets and other restrictions imposed in the Loan Agreement may limit our flexibility in raising capital for other purposes. Because substantially all of our assets are pledged to secure the Loan Agreement obligations, our ability to incur additional indebtedness or to sell or dispose of assets to raise capital may be impaired, which could have an adverse effect on our financial flexibility.

In addition, if we are unable to comply with certain financial and operating restrictions in the Loan Agreement, we may be limited in our business activities and access to credit or may default under the Loan Agreement. Provisions in the Loan Agreement impose restrictions or require prior approval on our ability, and the ability of certain of our subsidiaries to, among other things:

- sell, lease or transfer certain parts of our business or property, including equity interests of our subsidiaries;
- engage in new lines of business;
- acquire new companies and merge or consolidate;
- incur additional debt or guarantee the indebtedness of others or our subsidiaries;
- create liens or encumbrances;
- pay cash dividends and make distributions or redeem or repurchase our capital stock;
- make certain investments;
- enter into transactions with affiliates; and
- terminate or, in certain cases, amend our material agreements.

The Loan Agreement also contains other customary covenants. We may not be able to comply with these covenants in the future. Our failure to comply with these covenants may result in the declaration of an event of default, which, if not cured or waived, may result in the acceleration of the maturity of indebtedness outstanding under the Loan Agreement and would require us to pay all amounts outstanding. If the maturity of our indebtedness is accelerated, we may not have sufficient funds then available for repayment or we may not have the ability to borrow or obtain sufficient funds to replace the accelerated indebtedness on terms acceptable to us or at all. Our failure to repay our obligations under the Loan Agreement could result in Innovatus foreclosing on all or a portion of our assets, which could force us to curtail or cease our operations.

If we engage in any acquisitions, we will incur a variety of costs and may potentially face numerous risks that could adversely affect our business and operations.

We have made acquisitions in the past, and if appropriate opportunities become available, we may acquire additional businesses, assets, technologies, or products to enhance our business in the future.

In connection with any future acquisitions, we could:

- issue additional equity securities, which would dilute our current stockholders;
- incur substantial debt to fund the acquisitions;
- use our cash to fund the acquisitions; or
- assume significant liabilities including litigation risk.

Acquisitions involve numerous risks, including problems integrating the purchased operations, technologies or products, unanticipated costs and other liabilities, diversion of management's attention from our core businesses, adverse effects on existing business relationships with current and/or prospective collaborators, customers and/or suppliers, risks associated with entering markets in which we have no or limited prior experience and potential loss of key employees. We do not have extensive experience in managing the integration process and we may not be able to successfully integrate any businesses, assets, products, technologies or personnel that we might acquire in the future without a significant expenditure of operating, financial and management resources, if at all. The integration process could divert management's time from focusing on operating our business, result in a decline in employee morale and cause retention issues to arise from changes in compensation, reporting relationships, future prospects or the direction of the business. Acquisitions may also require us to record goodwill and non-amortizable intangible assets that will be subject to impairment testing on a regular basis and potential periodic impairment charges, incur amortization expenses related to certain intangible assets, and incur large and immediate write offs and restructuring and other related expenses, all of which could harm our operating results and financial condition. In addition, we may acquire companies that have insufficient internal financial controls, which could impair our ability to integrate the acquired company and adversely impact our financial reporting. If we fail in our integration efforts with respect to any of our acquisitions and are unable to efficiently operate as a combined organization, our business and financial condition may be adversely affected.

Risks Related to Government Regulation

Even if our customers, future customers or collaborators obtain regulatory approval for any products utilizing our enzymes, such products will remain subject to ongoing regulatory requirements, which may result in significant additional expense.

Our future revenues will depend, in part, on the ability of our customers to obtain and maintain regulatory approvals for therapeutic products utilizing our biocatalysts and other products. Any product that receives FDA approval will remain subject to ongoing regulatory requirements for manufacturing, labeling, packaging, distribution, storage, advertising, promotion, sampling, record-keeping and submission of safety and other post-market information, among other things. Any regulatory approvals received for such products may also be subject to limitations on the approved indicated uses for which they may be marketed or to the conditions of approval, or contain requirements for potentially costly post-marketing testing and surveillance studies. For example, the holder of an approved NDA or BLA in the United States is obligated to monitor and report adverse events and any failure of a product to meet the specifications in the NDA or BLA. In the United States, the holder of an approved NDA or BLA must also submit new or supplemental applications and obtain FDA approval for certain changes to the approved product, product labeling or manufacturing process. Similar provisions apply in the European Union (the "EU"). Advertising and promotional materials must comply with FDA rules and are subject to FDA review, in addition to other potentially applicable federal and state laws. Similarly, in the EU any promotion of medicinal products is highly regulated and, depending on the specific jurisdiction involved, may require prior vetting by the competent national regulatory authority. In addition, product manufacturers and their facilities are subject to payment of user fees and continual review and periodic inspections by the FDA and other regulatory authorities for compliance with cGMP requirements and adherence to commitments made in the NDA, BLA or foreign marketing application.

If our customers, future customers or our collaborators or a regulatory agency discovers previously unknown problems with a product such as adverse events of unanticipated severity or frequency or problems with the facility where the product is manufactured or disagrees with the promotion, marketing or labeling of that product, a regulatory agency may impose restrictions relative to that product, the manufacturing facility or our customers or collaborators, including requiring recall or withdrawal of the product from the market or suspension of manufacturing.

In addition, if our customers or collaborators fail to comply with applicable regulatory requirements, the FDA and other regulatory authorities may:

- issue an untitled letter or a warning letter asserting a violation of the law;
- seek an injunction, impose civil or criminal penalties, and impose monetary fines, restitution or disgorgement of profits or revenues;
- suspend or withdraw regulatory approval;
- issue safety alerts, Dear Healthcare Provider letters, press releases or other communications containing warnings or other safety information about the product;
- mandate modification of promotional materials and labeling and issuance of corrective information;
- issue consent decrees or corporate integrity agreements, or debar or exclude from federal healthcare programs;
- suspend or terminate any ongoing clinical trials or implement requirements to conduct post-marketing studies or clinical trials;
- refuse to approve a pending NDA, BLA or comparable foreign marketing application (or any supplements thereto);
- restrict the labeling, marketing, distribution, use or manufacturing of products;
- seize or detain products or otherwise require the withdrawal or recall of products from the market;
- refuse to approve pending applications or supplements to approved applications;
- refuse to permit the import or export of products; or
- refuse government contracts.

Any government investigation of alleged violations of law could require us to expend significant time and resources in response and could generate negative publicity. The occurrence of any event or penalty described above may also inhibit our customers or collaborators' ability to commercialize products and our ability to generate revenues.

In addition, the FDA's policies, and policies of foreign regulatory agencies, may change, including due to judicial challenges, and additional regulations may be enacted that could prevent, limit or delay regulatory approval of product candidates. We cannot predict the likelihood, nature or extent of government regulation that may arise from future legislation or administrative or executive action, either in the United States or abroad. If we are slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or if we are not able to maintain regulatory compliance, we may be subject to enforcement action and we may not achieve or sustain profitability.

If we or our customers fail to comply with certain healthcare laws, including fraud and abuse laws, we could face substantial penalties and our business, results of operations, financial condition and prospects could be adversely affected.

The healthcare industry is highly regulated. We, and our customers, are subject to various local, state, federal, national, and international laws and regulations, which include laws and regulations promulgated by the FDA, HHS, state boards of pharmacy, state health departments, and similar regulatory bodies in other countries. Additionally, our business operations and future arrangements with investigators, healthcare professionals, and consultants, among others, may expose us and our customers to broadly applicable fraud and abuse and other healthcare laws and regulations, including, without limitation, the federal Anti-Kickback Statute, the federal civil False Claims Act, the federal Civil Monetary Penalties Law, and analogous state laws. These laws may constrain the business or financial arrangements and relationships through which we will conduct our operations. Because of the breadth of these laws and narrowness of available statutory and regulatory exceptions, it is possible that some of our business activities could be regulated by or subject to challenge under one or more of such laws. We cannot ensure that our compliance controls, policies, and procedures will in every instance protect us from acts of our employees, agents, contractors, or collaborators that turn out to violate any of the laws described above. If we or our operations are found to be in violation of any of the laws described above or any other governmental regulations that apply to us, we may be subject to penalties, including civil and criminal penalties, damages, fines, imprisonment and the curtailment or restructuring of our operations, any of which could materially adversely affect our ability to operate our business and our financial results.

Ongoing healthcare legislative and regulatory reform measures may have a material adverse effect on our business and results of operations.

In the United States, there have been, and we expect there will continue to be, a number of legislative, regulatory, and administrative initiatives to contain healthcare costs. Some of these initiatives, such as ongoing healthcare reform, including with respect to reforming drug pricing, adverse changes in governmental or private funding of healthcare products and services, legislation or regulations governing patient access to care, and the delivery, coverage, pricing, and reimbursement of pharmaceuticals and healthcare services may cause our customers to change the amount of our offerings that they purchase from us or the price they are willing to pay us for these offerings. The timing of legislative, regulatory or executive action related to future healthcare reforms, if any, remains uncertain. If cost-containment efforts or other healthcare reform measures limit our customers' profitability, they may decrease research and development spending, which could decrease the demand for our products and services and materially adversely affect our growth prospects. Any of these factors could harm our customers' businesses, which, in turn, could materially adversely affect our business, financial condition, results of operations, cash flows, and prospects.

We cannot predict the likelihood, nature, or extent of other health reform initiatives that may arise from future legislative, administrative, or other action. Any substantial revision of applicable healthcare legislation or regulation could have a material adverse effect on the demand for our customers' products, which in turn could have a negative impact on our results of operations, financial condition, or business. Changes in the healthcare industry's pricing, selling, inventory, distribution, or supply policies or practices, or in public or government sentiment for the industry as a whole, could also significantly reduce our revenue and results of operations.

Compliance with European Union chemical regulations could be costly and adversely affect our business and results of operations.

Some of our products are subject to the EU regulatory regime known as The Registration, Evaluation and Authorization of Chemicals ("REACH"). REACH mandates that certain chemicals manufactured in, or imported into, the EU be registered and evaluated for their potential effects on human health and the environment. Under REACH, we and our contract manufacturers located in the EU are required to register certain of our products based on the quantity of such product imported into or manufactured in the EU and on the product's intended end-use. The registration, evaluation and authorization process under REACH can be costly and time consuming. Problems or delays in the registration, evaluation or authorization process under REACH could delay or prevent the manufacture of some of our products in, or the importation of some of our products into, the EU, which could adversely affect our business and results of operations. In addition, if we or our contract manufacturers fail to comply with REACH, we may be subject to penalties or other enforcement actions, which could have a material adverse effect on our business and results of operations.

The biopharmaceutical industry is subject to extensive regulatory obligations and policies that may be subject to significant and abrupt change, including due to judicial challenges, election cycles, and resulting regulatory updates and changes in policy priorities.

In June 2024, the U.S. Supreme Court issued an opinion holding that courts reviewing agency action pursuant to the Administrative Procedure Act "must exercise their independent judgment" and "may not defer to an agency interpretation of the law simply because a statute is ambiguous." The decision will have a significant impact on how lower courts evaluate challenges to agency interpretations of law, including those by HHS, the FDA, CMS and other agencies with significant oversight of the biopharmaceutical industry. The new framework is likely to increase both the frequency of such challenges and their odds of success by eliminating one way in which the government previously prevailed in such cases. As a result, significant regulatory policies will be subject to increased litigation and judicial scrutiny.

In addition, federal agency priorities, leadership, policies, rulemaking, communications, spending and staffing may be significantly impacted by election cycles. For example, the current U.S. presidential administration has committed to significantly reduce government spending through cuts to federal healthcare programs and reductions in the workforces of key government agencies, such as HHS, the FDA and CMS. Efforts by the current administration to limit federal agency budgets or personnel may result in reductions to agency budgets, employees and operations, which may lead to slower response times and longer review periods, potentially affecting the ability of our customers, future customers or collaborators to obtain regulatory approval for their product candidates utilizing our enzyme products. Any resulting changes in regulation may result in unexpected delays, increased costs, or other negative impacts on our business that are difficult to predict.

Risks Related to Intellectual Property

Our efforts to prosecute, maintain, protect and/or defend our intellectual property rights may not be successful.

We will continue to file and prosecute patent applications and maintain trade secrets in an ongoing effort to protect our intellectual property rights. It is possible that our current patents, or patents which we may later acquire, may be successfully challenged or invalidated, in whole or in part. It is also possible that we may not obtain issued patents from our pending patent applications. We sometimes permit certain patents or patent applications to lapse or go abandoned under appropriate circumstances. Due to uncertainties inherent in prosecuting patent applications, sometimes patent applications are rejected, and we subsequently abandon them. It is also possible that we may develop proprietary technology, products or services in the future that are not patentable or that the patents of others will limit or altogether preclude our ability to conduct business. In addition, any patent issued to us or to our licensor may provide us with little or no competitive advantage, in which case we may abandon such patent, license it to another entity or terminate the license agreement.

Our means of protecting our proprietary rights may not be adequate and our competitors may independently develop technologies, products or services that are identical or similar to ours or that compete with ours. Patent, trademark, copyright and trade secret laws afford only limited protection for our technology, products and services. The laws of many countries do not protect our proprietary rights to as great an extent as do the laws of the United States. Despite our efforts to protect our proprietary rights, unauthorized parties have in the past attempted, and may in the future attempt, to operate under the aspects of our intellectual property rights, or proprietary technology, products or services or products, or to obtain and use information that we regard as proprietary. Third parties may also design around our proprietary rights, which may render our protected technology, services and products less valuable, if the design around is favorably received in the marketplace. In addition, if any of our technology, products and services are covered by third-party patents or other intellectual property rights, we could be subject to various legal actions. For example, we are aware of certain third-party intellectual property that does or may overlap with aspects of the Company's technology. We cannot assure that our technology, products and/or services do not infringe, violate or misappropriate any patents or other intellectual property rights owned or controlled by others or that they will not in the future.

Litigation may be necessary to enforce our intellectual property rights, to protect our trade secrets, to determine the validity and scope of the proprietary rights of others, or to defend against claims of infringement, invalidity, misappropriation, or other claims.

Any such litigation could result in substantial costs and diversion of our resources. Moreover, any settlement of or adverse judgment resulting from litigation relating to intellectual property rights could require us to obtain a license, which may be on terms that are not favorable to us, to continue to make, use, import, sell or offer for sale the technology, products or services that is the subject of the claim, or otherwise restrict or prohibit our use of the technology, products or services.

Our ability to compete may decline if we do not adequately prosecute, maintain, protect and/or defend our proprietary technology, products or services or our intellectual property rights.

Our success depends in part on our ability to obtain patents and maintain adequate protection of our intellectual property rights directed to our technology, products and services in the United States and other countries. We have adopted a strategy of seeking patent protection in the United States and in foreign countries with respect to certain of the technology used in or relating to our products, services, and processes. As such, as of December 31, 2025, we owned or controlled approximately 1,600 active issued patents and pending patent applications in the United States and in various foreign jurisdictions. As of December 31, 2025, our patents and patent applications, if issued, have terms that expire between 2026 and approximately 2046. We also have license rights to a number of issued patents and pending patent applications in the United States and in various foreign jurisdictions. Our owned and licensed patents and patent applications include those directed to our enabling technology and to the methods and products that support our business in the pharmaceutical manufacturing, life sciences, oligonucleotide synthesis, and other markets. We intend to continue to apply for patents relating to our technology, methods, services and products as we deem appropriate.

Issuance of claims in patent applications and enforceability of such claims once issued involve complex legal and factual questions and, therefore, we cannot predict with any certainty whether any of our issued patents will survive invalidity claims asserted by third parties. Issued patents and patents issuing from pending applications may be challenged, invalidated, circumvented, rendered unenforceable or substantially narrowed in scope. In addition, the inventorship and ownership of the patents and patent applications may be challenged by others. Moreover, the United States Leahy-Smith America Invents Act ("AIA"), enacted in September 2011, brought significant changes to the United States patent system, which include a change to a "first to file" system from a "first to invent" system and changes to the procedures for challenging issued patents and disputing patent applications during the examination process, among other things. While interference proceedings are possible for patent claims filed prior to March 16, 2013, many of our filings will be subject to the pre- and post-grant proceedings set forth in the AIA, including citation of prior art and written statements by third parties, third party pre-issuance submissions, ex parte reexamination, inter partes review, post-grant review, and derivation proceedings. We may need to utilize the processes provided by the AIA for supplemental examination or patent reissuance. These proceedings could result in substantial cost to us even if the outcome is favorable. Even if successful, any proceeding may result in loss of certain claims. Any litigation or proceedings could divert our management's time and efforts. Even unsuccessful claims brought by third parties could result in significant legal fees and other expenses, diversion of management time, and disruption in our business. Uncertainties resulting from initiation and continuation of any patent or related litigation could harm our ability to compete.

Additional uncertainty may result from legal precedent handed down by the United States Federal Circuit Court and Supreme Court as they determine legal issues concerning the scope and construction of patent claims and inconsistent interpretation of patent laws by the lower courts. Accordingly, we cannot ensure that any of our pending patent applications will result in issued patents, or even if issued, predict the breadth of the claims upheld in our, our licensors', and other companies' patents. Given that the degree of future protection for our proprietary rights is uncertain, we cannot ensure that: (i) we or our licensors were the first to invent the inventions covered by each of our pending applications, (ii) we or our licensors were the first to file patent applications for these inventions, or (iii) the proprietary technology, products or services we develop will be patentable. In addition, unauthorized parties may attempt to copy or otherwise obtain and use our technology, products and services. Monitoring unauthorized use of our intellectual property rights is difficult, and we cannot be certain that the steps we have taken will prevent unauthorized use of our technology, products or services, particularly in certain foreign countries where the local laws may not protect our proprietary rights as fully as in the United States. Moreover, third parties could practice our inventions in territories where we do not have patent protection. Such third parties may then try to import products made using our inventions into the United States or other countries. If competitors are able to use our proprietary technology, products or services, our ability to compete effectively could be harmed. In addition, others may independently develop and obtain patents for technologies, products or services that are similar to or superior to our technologies, products or services. If that happens, we may need to license these technologies, products or services, and we may not be able to obtain licenses on reasonable terms, if at all, which could cause harm to our business.

Similarly, foreign courts have made, and will likely continue to make, changes in how the patent laws in their respective jurisdictions are interpreted. Changes in patent laws and regulations in other countries or jurisdictions, changes in the governmental bodies that enforce them, or changes in how the relevant governmental authority enforces patent laws or regulations may weaken our ability to obtain new patents or to enforce patents that we own or may obtain in the future. For example, in some cases, we have filed for unitary patent protection under the rules implemented on June 1, 2023, in the European Patent Office. We will continue to assess this route of protection on a case-by-case basis, as applications are filed and patents are granted through the European Patent Office. This may alter our ability to protect our patents in some European countries. Further, the laws of some foreign countries do not protect proprietary rights to the same extent or in the same manner as the laws of the United States. For example, in some foreign jurisdictions, governments have the right to compel patent owners to grant others licenses to their intellectual property under certain circumstances. In addition, any protection afforded by foreign patents may be more limited than that provided under U.S. patent and intellectual property laws. We may encounter significant problems in enforcing and defending our intellectual property both in the United States and abroad. For example, if the issuance in a given country of a patent covering an invention is not followed by the issuance in other countries of patents covering the same invention, or if any judicial interpretation of the validity, enforceability or scope of the claims or the written description or enablement in a patent issued in one country is not similar to the interpretation given to the corresponding patent issued in other countries, our ability to protect our intellectual property rights in those countries may be limited. Changes in either patent laws or in interpretations of patent laws in the United States and other countries may materially diminish the value of our intellectual property rights or narrow the scope of our patent protection. We cannot predict future changes in the interpretation of patent laws or changes to patent laws that might be enacted into law by U.S. and foreign legislative bodies. Those changes may materially affect our patents or patent applications and our ability to obtain additional patent protection in the future. Any of the foregoing could have a material adverse effect on our competitive position, business, financial condition, results of operations and prospects.

Third parties may claim that we are infringing, violating or misappropriating their intellectual property rights, which may subject us to costly and time-consuming litigation and prevent us from developing or commercializing our technology, products or services.

Our commercial success also depends in part on our ability to operate without infringing, violating or misappropriating patents and other intellectual property rights of third parties, and without breaching any licenses or other agreements that we have entered into with regard to our technologies, products or services. We cannot ensure that patents have not been issued, or will not be issued, to third parties that could block our ability to obtain patents or to operate as we would like. There may be patents in some countries that, if valid, may block our ability to make, use, sell, or offer for sale our technology, products or services in those countries, or import our products into those countries, if we are unsuccessful in circumventing or acquiring rights to these patents. There also may be claims in patent applications filed in some countries that, if granted and valid, may also block our ability to commercialize technology, products, services or processes in these countries if we are unable to circumvent or obtain rights to them.

The industries in which we operate and the biotechnology industry, in particular, are characterized by frequent and extensive litigation regarding patents and other intellectual property rights. Many biotechnology companies have employed intellectual property litigation as a way to gain a competitive advantage. We are aware of some patents and patent applications relating to aspects of our technologies, products or services filed by, and issued to, third parties. We cannot assure that if such third-party patents rights are asserted against us that we would ultimately prevail. Any involvement in litigation or other intellectual property proceedings inside and/or outside of the United States to defend against claims that we infringe, misappropriate or violate the intellectual property rights of others may divert our management's time from focusing on business operations and could cause us to spend significant amounts of money. Any potential intellectual property litigation also could force us to do one or more of the following:

- stop making, using, selling, offering for sale or importing our technologies, products and services that use the subject intellectual property;
- pay monetary damages to the third party asserting claims against us;
- grant or transfer rights to third parties relating to our patents or other intellectual property rights;
- obtain from the third party asserting its intellectual property rights a license to make, sell, offer for sale, import or use the relevant technology, product or service, which license may not be available on reasonable terms, or at all; or
- redesign those technologies, products, services or processes that use any allegedly infringing, misappropriated or violated intellectual property rights, or relocate the operations relating to the allegedly infringing, misappropriated or violated intellectual property rights to another jurisdiction, which may result in significant cost or delay to us, could be technically infeasible or could prevent us from making, selling, offering for sale, using or importing some of our technologies, products or services in the United States or other jurisdictions.

We may be involved in lawsuits to protect or enforce our intellectual property rights, which could be expensive, time-consuming and unsuccessful.

Competitors may infringe, violate or misappropriate our intellectual property rights or those of our licensors. To prevent infringement, violation, misappropriation or other unauthorized use, we have in the past filed, and may in the future be required to file, enforcement claims, which can be expensive and time-consuming. In addition, in an enforcement proceeding, a court may decide that the intellectual property right that we own or control is not valid, is unenforceable and/or is not infringed, violated or misappropriated. In addition, in legal proceedings against a third party to enforce a patent directed at one of our technologies, products or services, the defendant could counterclaim that our patent is invalid and/or unenforceable in whole or in part. In patent enforcement litigation in the United States, defendant counterclaims alleging invalidity and/or unenforceability are commonplace. Grounds for a patent validity challenge include an alleged failure to meet any of several statutory requirements, including lack of novelty, obviousness or non-enablement. Grounds for an unenforceability assertion could include an allegation that someone connected with prosecution of the patent withheld relevant information from the United States Patent and Trademark Office ("USPTO") or made a misleading statement during prosecution. Third parties may also raise similar claims before the USPTO, even outside the context of enforcement litigation. The outcome following legal assertions of invalidity and unenforceability is unpredictable, and prior art could render our patents or those of our licensors invalid. If a defendant were to prevail on a legal assertion of invalidity and/or unenforceability, we would lose at least part, and perhaps all, of the patent protection on the respective technology, products or services. Such a loss of patent protection could have a material adverse impact on our business.

Even if resolved in our favor, litigation or other legal proceedings relating to our intellectual property rights may cause us to incur significant expenses and could distract our technical and management personnel from their normal responsibilities. In addition, there could be public announcements of the results of hearings, motions or other interim proceedings or developments and if securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the price of our common stock. Such litigation or proceedings could substantially increase our expenses and reduce the resources available for operations and research and development activities. We may not have sufficient financial or other resources to conduct such litigation or proceedings adequately. Some of our competitors may be able to sustain the costs of such litigation or proceedings more effectively than we can because of their greater financial resources. Uncertainties resulting from the initiation and continuation of patent litigation or other proceedings could compromise our ability to compete in the marketplace. Furthermore, because of the substantial amount of discovery required in connection with U.S. intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation.

We may not be able to enforce our intellectual property rights throughout the world.

The laws of some foreign countries where we do business do not protect intellectual property rights to the same extent as the laws of the United States. Many companies have encountered significant problems in protecting and enforcing intellectual property rights in certain foreign jurisdictions. The legal systems of certain countries, particularly certain developing countries, do not favor the enforcement of patents and other intellectual property rights, particularly those relating to biotechnology technologies. Accordingly, our efforts to protect and enforce our intellectual property rights in such countries may be inadequate. This could make it difficult for us to stop the infringement, violation or misappropriation of our patents or other intellectual property rights. Additionally, proceedings to enforce our patent rights in foreign jurisdictions could result in substantial costs and divert our efforts and attention from other aspects of our business.

If our biocatalysts, or the genes that code for our biocatalysts, are stolen, misappropriated or reverse engineered, others could use these biocatalysts or genes to produce competing products.

Third parties, including our contract manufacturers, customers and those involved in shipping our biocatalysts, often have custody or control of our biocatalysts. If our biocatalysts, or the genes that code for our biocatalysts, were stolen, misappropriated or reverse engineered, they could be used by other parties who may be able to reproduce these biocatalysts for their own commercial gain. If this were to occur, it may be difficult for us to challenge this type of use, especially in countries with limited intellectual property rights protection or in countries in which we do not have patents covering the misappropriated biocatalysts.

Confidentiality and non-use agreements with employees, consultants, advisors and other third parties may not adequately prevent disclosures and non-use of trade secrets and other proprietary information.

In addition to patent protection, we also rely on other intellectual property rights, including protection of copyright, trade secrets, know-how and/or other proprietary information that is not patentable or that we elect not to patent. However, trade secrets can be difficult to protect, and some courts are less willing or unwilling to protect trade secrets. To maintain the confidentiality of our trade secrets and proprietary information, we rely in part on trade secret law and contractual agreements to protect our confidential and proprietary information and processes. We generally enter into confidentiality and invention assignment agreements with our employees, consultants and third parties working on our behalf upon their commencement of a relationship with us. However, trade secrets and confidential information are difficult to protect and we cannot guarantee that we have entered into such agreements with each party that may have or have had access to our trade secrets or proprietary technology and processes and we may not enter into such agreements with all employees, consultants and third parties who have been involved in the development of our intellectual property rights. Nevertheless, without our permission or awareness, our confidential and proprietary information may be disclosed to third parties, used by the respective individuals for purposes other than for the Company's business, or obtained through illegal means, such that third parties could reverse engineer our biocatalysts, enzyme products and processes, to attempt to develop the same technology or develop substantially equivalent technology.

Costly and time-consuming litigation could be necessary to enforce and determine the scope of our confidential and proprietary rights, and failure to protect our trade secrets could adversely affect our competitive business position. If any of our trade secrets were lawfully obtained, we may be unable to prevent them, or those to whom they communicate it, from using that technology or information to compete with us or disclosing it publicly. Therefore, these events could have a material adverse effect on our business, financial condition and results of operations. In particular, a failure to protect our proprietary rights may allow competitors to copy our technology, which could adversely affect our pricing and market share.

In addition to contractual measures, we try to protect the confidential nature of our proprietary information by maintaining physical security of our premises and electronic security of our information technology systems. Such security measures may not, for example, in the case of misappropriation of a trade secret by an employee, consultant or other third party with authorized access or with unauthorized access but an intent to steal, provide adequate protection for our proprietary information. Our security measures may not prevent such employee, consultant or other third party from misappropriating our trade secrets and using them or providing them to a competitor, and recourse we take against such misconduct may not provide an adequate remedy to protect our interests fully. While we use commonly accepted security measures, trade secret violations are often a matter of state law in the United States, and the criteria for protection of trade secrets can vary among different jurisdictions. If the steps we have taken to maintain our trade secrets are deemed inadequate, we may have insufficient recourse against third parties for misappropriating the trade secret.

Risks Related to Owning our Common Stock

We are subject to anti-takeover provisions in our certificate of incorporation and bylaws and under Delaware law that could delay or prevent an acquisition of our company, even if the acquisition would be beneficial to our stockholders.

Provisions in our amended and restated certificate of incorporation and our bylaws may delay or prevent an acquisition of the Company. Among other things, our amended and restated certificate of incorporation and bylaws provide for a board of directors which is divided into three classes, with staggered three-year terms and provide that all stockholder action must be effected at a duly called meeting of the stockholders and not by a consent in writing, and further provide that only our Board of Directors (our "Board"), the chairman of our Board, our chief executive officer or president may call a special meeting of the stockholders. In addition, our amended and restated certificate of incorporation allows our Board, without further action by our stockholders, to issue up to 5,000,000 shares of preferred stock in one or more series and to fix the rights, preferences, privileges and restrictions thereof. These provisions may also frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace members of our Board, who are responsible for appointing the members of our management team. Furthermore, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law ("DGCL") which prohibits, with some exceptions, stockholders owning in excess of 15% of our outstanding voting stock from merging or combining with us. Finally, our charter documents establish advance notice requirements for nominations for election to our Board and for proposing matters that can be acted upon at stockholder meetings. Although we believe these provisions together provide for an opportunity to receive higher bids by requiring potential acquirers to negotiate with our Board, they would apply even if an offer to acquire our company may be considered beneficial by some stockholders.

Our bylaws designate a state or federal court located within the State of Delaware as the sole and exclusive forum for substantially all disputes between us and our stockholders, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our current or former directors, officers, stockholders, or other employees.

Our bylaws provide that, unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware shall be the sole and exclusive forum for (i) any derivative action or proceeding brought on behalf of us under Delaware law, (ii) any action asserting a claim of breach of a fiduciary duty owed by any current or former director, officer, or other employee of the Company to us or our stockholders, (iii) any action asserting a claim against us or any of our directors, officers, or other employees arising pursuant to any provision of the DGCL or our certificate of incorporation or bylaws (as either may be amended from time to time), (iv) any action asserting a claim against us governed by the internal affairs doctrine, or (v) any other action asserting an "internal corporate claim," as defined under Section 115 of the DGCL. The forgoing provisions do not apply to any claims arising under the Securities Act and, unless we consent in writing to the selection of an alternative forum, the federal district courts of the United States will be the sole and exclusive forum for resolving any action asserting a claim arising under the Securities Act.

These choice of forum provisions may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or any of our current or former directors, officers, or other employees, which may discourage lawsuits with respect to such claims. There is uncertainty as to whether a court would enforce such provisions, and the enforceability of similar choice of forum provisions in other companies' charter documents has been challenged in legal proceedings. It is possible that a court could find these types of provisions to be inapplicable or unenforceable, and if a court were to find the choice of forum provision to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving such action in other jurisdictions, which could harm our business, results of operations or financial condition.

Our quarterly or annual operating results may fluctuate in the future. As a result, we may fail to meet or exceed the expectations of research analysts or investors, which could cause our stock price to decline.

Our financial condition and operating results have varied significantly in the past and may continue to fluctuate from quarter to quarter and year to year in the future due to a variety of factors, many of which are beyond our control. Factors relating to our business that may contribute to these fluctuations include the following factors, as well as other factors described elsewhere in this report:

- our ability to achieve or maintain profitability;
- our dependence on a limited number of customers;

- some of our product supply agreements with customers have finite duration, may not be extended or renewed and generally do not require the customer to purchase any particular quantity or quantities of our products;
- the timing of customer orders and our related revenue recognition may vary significantly from quarter to quarter;
- with respect to customers purchasing our products for the manufacture of active pharmaceutical ingredients for which they have exclusivity due to patent protection, the termination or expiration of such patent protection and any resulting generic competition may materially and adversely affect our revenues, financial condition or results of operations;
- our dependence on a limited number of products in our performance enzymes business;
- our reliance on a limited number of contract manufacturers for large scale production of substantially all of our enzyme products;
- our relationships with, and dependence on, collaborators in our principal markets;
- our ability to successfully and timely develop and commercialize new products, including our ECO Synthesis manufacturing platform, for the markets we serve;
- the potential of GSK, Merck, Novartis or any other performance enzyme customer terminating their agreements with us;
- the success of our customers' products in the market and the ability of such customers to obtain regulatory approvals for products and processes;
- our ability to deploy our technology platform in life science tools markets;
- our dependence on our collaborators or customers' product candidates which could unexpectedly fail at any stage of preclinical or clinical development;
- our dependence on our collaborators or customers' product candidates which may lack the ability to work as intended or cause undesirable side effects;
- our ability to successfully prosecute and protect our intellectual property;
- our ability to compete if we do not adequately protect our proprietary technologies or if we lose some of our intellectual property rights;
- our ability to avoid infringing the intellectual property rights of third parties;
- our involvement in lawsuits to protect or enforce our patents or other intellectual property rights;
- our ability to enforce our intellectual property rights throughout the world;
- our dependence on, and the need to attract and retain, key management and other personnel;
- our ability to prevent the theft or misappropriation of our biocatalysts, the genes that code for our biocatalysts, know-how or technologies;
- our ability to protect our trade secrets and other proprietary information from disclosure by employees and others;
- our ability to obtain substantial additional capital that may be necessary to expand our business;
- our ability to comply with the terms of our Loan Agreement;
- our ability to timely pay debt service obligations;
- our customers' ability to pay amounts owed to us in a timely manner;
- our ability to avoid charges to earnings as a result of any impairment of goodwill, intangible assets or other long-lived assets;
- changes in financial accounting standards or practices may cause adverse, unexpected financial reporting fluctuations and affect our reported results of operations;

- our ability to maintain effective internal control over financial reporting;
- our dependency on information technology systems, infrastructure and data;
- our ability to control and to improve product gross margins;
- our ability to protect against risks associated with the international aspects of our business;
- the cost of compliance with EU chemical regulations;
- potential advantages that our competitors and potential competitors may have in securing funding or developing products;
- our ability to accurately report our financial results in a timely manner;
- results of regulatory tax examinations;
- market and economic conditions may negatively impact our business, financial condition, and share price;
- business interruptions due to natural disasters, disease outbreaks or other events beyond our control;
- public concerns about the ethical, legal and social ramifications of genetically engineered products and processes;
- our ability to integrate our current business with any businesses that we may acquire in the future;
- our ability to properly handle and dispose of hazardous materials in our business;
- potential product liability claims;
- changes to tax law and related regulations could materially affect our tax obligations and effective tax rate; and
- our ability to use our NOLs to offset future taxable income.

Due to the various factors mentioned above, and others, the results of any prior quarterly or annual periods should not be relied upon as indications of our future operating performance.

We do not intend to pay cash dividends for the foreseeable future.

We currently intend to retain our future earnings, if any, to finance the further development and expansion of our business and do not intend to pay cash dividends in the foreseeable future. Any future determination to pay dividends will be at the discretion of our Board and will depend on our financial condition, results of operations, capital requirements, restrictions contained in future agreements and financing instruments, business prospects and such other factors as our Board deems relevant.

General Risk Factors

If securities or industry analysts do not publish research or reports about our business, or publish negative reports about our business, our stock price and trading volume could decline.

The trading market for our common stock will be influenced by the research and reports that securities or industry analysts publish about us or our business. We do not have any control over these analysts. If one or more of the analysts who cover us downgrade our stock or change their opinion of our stock in a negative manner, our stock price would likely decline. If one or more of these analysts cease coverage of our company or fail to regularly publish reports on us, we could lose visibility in the financial markets, which could cause our stock price or trading volume to decline.

We face risks associated with our international business.

While we have a limited number of employees located outside of the United States, we are and will continue to be dependent upon contract manufacturers located outside of the United States. In addition, we have customers and partners located outside of the United States. Conducting business internationally exposes us to a variety of risks, including:

- changes in or interpretations of U.S. or foreign laws or regulations that may adversely affect our ability to sell our products, repatriate profits to the United States or operate our foreign-located facilities;

- the imposition or increase of tariffs and other trade barriers, including as a result of the U.S. presidential administration;
- the imposition of limitations on, or increase of, withholding and other taxes on remittances and other payments by foreign subsidiaries or joint ventures;
- the imposition of limitations on genetically-engineered or other products or processes and the production or sale of those products or processes in foreign countries;
- currency exchange rate fluctuations;
- uncertainties relating to foreign laws, regulations and legal proceedings including pharmaceutical, tax, import/export, anti-corruption and exchange control laws;
- the availability of government subsidies or other incentives that benefit competitors in their local markets that are not available to us;
- increased demands on our limited resources created by our operations may constrain the capabilities of our administrative and operational resources and restrict our ability to attract, train, manage and retain qualified management, technicians, scientists and other personnel;
- economic or political instability in foreign countries;
- difficulties associated with staffing and managing foreign operations; and
- the need to comply with a variety of United States and foreign laws applicable to the conduct of international business, including import and export control laws and anti-corruption laws.

Market and economic conditions may negatively impact our business, financial condition, and share price.

Concerns about inflation, energy costs, geopolitical issues, the United States mortgage market and a declining real estate market, unstable global credit markets and financial conditions, and volatile oil prices have led to periods of significant economic instability, diminished liquidity and credit availability, declines in consumers confidence and discretionary spending, diminished expectations for the global economy and expectations of slower global economic growth going forward, increased unemployment rates, and increased credit defaults in recent years. Our general business strategy may be adversely affected by any such economic downturns, volatile business environments and continued unstable or unpredictable economic and market conditions.

During 2023, the closures of Silicon Valley Bank and Signature Bank and their placement into receivership with the Federal Deposit Insurance Corporation, and the government-brokered sale of the deposits and majority of assets of First Republic Bank to JPMorgan Chase, created bank-specific and broader financial institution liquidity risk and concerns. Although government intervention ensured that depositors at these banks have access to their funds, future adverse developments with respect to specific financial institutions or the broader financial services industry may lead to market-wide liquidity shortages, impair the ability of companies to access near-term working capital needs, and create additional market and economic uncertainty. There can be no assurance that future credit and financial market instability and a deterioration in confidence in economic conditions will not occur, and we cannot predict the impact or follow-on effects of these insolvencies more broadly or on our business in particular. Further, we cannot guarantee that the government will intervene to provide depositors with access to funds if similar events occur in the future. If other banks and financial institutions enter receivership or become insolvent in the future, our ability to access our existing cash, cash equivalents, and investments may be threatened, which could have a material adverse effect on our business and financial condition.

In addition, if the market and economic conditions described above continue to deteriorate or do not improve, it may make any necessary debt or equity financing more difficult to complete, more costly, and more dilutive. Failure to secure any necessary financing in a timely manner and on favorable terms could have a material adverse effect on our growth strategy, financial performance, and stock price. Additionally, rising rates of inflation have increased the costs associated with conducting our business, including by causing substantial increases in the costs of materials, including raw materials and consumables, equipment, services, and labor. Moreover, given the unpredictable nature of the current economic climate, including future changes in rates of inflation and the potential for high tariffs or other trade barriers, it may be increasingly difficult for us to predict and control our future expenses, which may harm our ability to conduct our business.

International trade policies, including tariffs, sanctions and trade barriers, may adversely affect our business.

We operate in a global economy, which includes utilizing third-party suppliers in several countries outside the U.S. There is inherent risk that global trade restrictions or changes in trade policies and export regulations could adversely affect our business and operations. The current international trade and regulatory environment is subject to significant ongoing uncertainty. The U.S. government has recently announced substantial new tariffs affecting a wide range of products and jurisdictions and has indicated an intention to continue developing new trade policies. In response, certain foreign governments have announced or implemented retaliatory tariffs and other protectionist measures.

Significant changes or developments in U.S. and international laws and policies, such as laws and policies surrounding international trade, foreign affairs, manufacturing and development and investment in countries where we, our suppliers or our customers operate, could increase our costs, increase our customers' costs and adversely impact our customers' business and financial condition, make our technology, products and services less competitive in the U.S. and other markets affected by such actions, and materially adversely affect our business and financial condition.

Current or future tariffs will also result in increased research and development expenses, including with respect to increased costs associated with raw materials, laboratory equipment and research materials and components, for our customers, or collaborators and us. In addition, such tariffs may increase our supply chain complexity and could also potentially disrupt our existing supply chain. Increased development costs and extended development timelines could impact our customers' ability to fund additional research and development or place us at a competitive disadvantage compared to companies operating in regions with more favorable trade relationships, which could reduce customer or investor confidence and adversely affect our competitive position, business, financial condition, results of operations or prospects.

While we continue to monitor these developments, the full impact of these risks remains uncertain and any economic downturn, escalation in trade tensions, or deterioration in international perception of U.S.-based companies could materially and adversely affect our business, results of operations, financial condition and prospects. In addition, trade developments have and may continue to heighten the risks related to the other risk factors described elsewhere in this Annual Report on Form 10-K.

Business interruptions resulting from disasters or other disturbances could delay us in the process of developing our products and could disrupt our sales. Our business continuity and disaster recovery plans may not adequately protect us from a serious disaster or other disturbance.

Our headquarters and other facilities are located in the San Francisco Bay Area, which in the past has experienced both severe earthquakes and wildfires. Earthquakes, wildfires or other natural disasters could severely disrupt our operations, and have a material adverse effect on our business, results of operations, financial condition and prospects. We are also vulnerable to other types of disasters and other events that could disrupt our operations, such as riot, civil disturbances, war, terrorist acts, public health emergencies, domestic or foreign conflicts, infections in our laboratory or production facilities or those of our customers or contract manufacturers and other events beyond our control. If a natural disaster or other event occurred that prevented us from using all or a significant portion of our headquarters, that damaged critical infrastructure, such as our enterprise financial systems or manufacturing resource planning and enterprise quality systems, or that otherwise disrupted operations, including due to impacts on our collaborators, suppliers or other third parties on which we rely, it may be difficult or, in certain cases, impossible, for us to continue our business for a substantial period of time. The disaster recovery and business continuity plans we have in place currently are limited and are unlikely to prove adequate in the event of a serious disaster or similar event, and we may incur substantial expenses as a result of the limited nature of such plans. We do not carry insurance for earthquakes and we may not carry sufficient business interruption insurance to compensate us for losses that may occur. Any losses or damages we incur could have a material adverse effect on our cash flows and success as an overall business.

We are dependent on information technology systems, infrastructure and data, and any failure of these systems could harm our business. Security breaches, loss of data and other disruptions, whether related to artificial intelligence or other means, could compromise sensitive information related to our business or individuals, or prevent us from accessing critical information and expose us to liability, which could adversely affect our business, results of operations and financial condition.

Information technology helps us operate efficiently, interface with customers, maintain financial accuracy and efficiency and accurately produce our financial statements. If we do not allocate and effectively manage the resources necessary to build and sustain the proper technology infrastructure, we could be subject to transaction errors, processing inefficiencies, the loss of customers, business disruptions or the loss of or damage to intellectual property or data through security breach. If our information technology systems do not effectively collect, store, process and report relevant data for the operation of our business, whether due to equipment malfunction or constraints, software deficiencies, or human error, our ability to effectively plan, forecast and execute our business plan and comply with applicable laws and regulations will be impaired, perhaps materially. Our information technology systems and those of our external vendors, strategic partners and other contractors or consultants are vulnerable to attack and damage or interruption from computer viruses and malware (e.g. ransomware), malicious code, natural disasters, terrorism, war, telecommunication and electrical failures, hacking, cyberattacks, phishing attacks and other social engineering schemes, employee theft or misuse, human error, software or hardware errors, misconfigurations, bugs, fraud, denial or degradation of service attacks, sophisticated nation-state and nation-state-supported actors or unauthorized access or use by persons inside our organization, or persons with access to systems inside our organization. The prevalence of artificial intelligence ("AI") tools in the global marketplace and rapid changes thereto raise the risk to our systems by making more sophisticated tools available to bad actors, and by making our data more vulnerable to inadvertent leaks or corruption by employees and others. Any such issues could materially and adversely affect our financial condition, results of operations, cash flows and the timeliness with which we report our internal and external operating results.

Our business may require us to use and store personal information of our customers, employees, and business partners on our information technology systems. This may include names, addresses, phone numbers, email addresses, contact preferences, tax identification numbers and payment account information. We require usernames and passwords in order to access our information technology systems. We also use encryption and authentication technologies to secure the transmission and storage of data. However, these security measures may be compromised as a result of security breaches by unauthorized persons, employee error, malfeasance, faulty password management or other irregularity, and result in persons obtaining unauthorized access to our data or accounts. Third parties may attempt to fraudulently induce employees or customers into disclosing usernames, passwords or other sensitive information, which may in turn be used to access our information technology systems. For example, our employees have received "phishing" emails and phone calls attempting to induce them to divulge passwords and other sensitive information.

In addition, unauthorized persons may attempt to hack into our products or systems to obtain personal data relating to employees and other individuals, our confidential or proprietary information or confidential information we hold on behalf of third parties. We also rely on external vendors to supply and/or support certain aspects of our information technology systems. The systems of these external vendors may contain defects in design or manufacture or other problems that could unexpectedly compromise information security of our own systems, and we are dependent on these third parties to deploy appropriate security programs to protect their systems. If we or our third-party vendors were to experience a significant cybersecurity breach of our or their information systems or data, the costs associated with the investigation, remediation and potential notification of the breach to counterparties and data subjects could be material. Our remediation efforts may not be successful. Further, if such an event were to occur and cause interruptions in our operations, it could result in a material disruption of our development programs and our business operations, whether due to a loss, corruption or unauthorized disclosure of our trade secrets, personal information or other proprietary or sensitive information or other similar disruptions. Attacks upon information technology systems are also increasing in their frequency, levels of persistence, sophistication and intensity, and are being conducted by sophisticated and organized groups and individuals with a wide range of motives and expertise. As a result of the remote work policies we initiated in response to the COVID-19 pandemic, and our continued hybrid working environment, we may also face increased cybersecurity risks due to our reliance on internet technology and the number of our employees who are working remotely, which may create additional opportunities for cybercriminals to exploit vulnerabilities. Additionally, any integration of AI in our or any third party's operations, products or services is expected to pose new or unknown cybersecurity risks and challenges. We have programs in place to detect, contain and respond to data security incidents, and we make ongoing improvements to our information-sharing products in order to minimize vulnerabilities, in accordance with industry and regulatory standards. However, because the techniques used to obtain unauthorized access to or sabotage systems change frequently and may be difficult to detect, we may not be able to anticipate and prevent these intrusions or mitigate them when and if they occur. Even if identified, we may be unable to adequately and timely investigate or remediate incidents or breaches due to attackers increasingly using tools and techniques (such as AI) that are designed to circumvent controls, to avoid detection and to remove or obfuscate forensic evidence.

We and certain of our external vendors are from time to time subject to cyberattacks and security incidents. While we do not believe that we have experienced any significant system failure, accident, or security breach to date, if such an event were to occur, it could result in the unauthorized access to or unauthorized use, disclosure, release or other processing of personal information, it may be necessary to notify individuals, governmental authorities, supervisory bodies, the media and other parties pursuant to privacy and security laws. Any security compromise affecting us, our service providers, vendors, strategic partners, other contractors, consultants or our industry, whether real or perceived, could harm our reputation, erode confidence in the effectiveness of our security measures and lead to regulatory scrutiny. There can be no assurance that our cybersecurity risk management program and processes, including our policies, controls or procedures, will be fully implemented, complied with or effective in protecting our information technology systems and confidential information. To the extent that any disruption or security breach were to result in a loss of, or damage to, our data or systems, or inappropriate disclosure of confidential or proprietary or personal information, we could incur liability, including litigation exposure, penalties and fines, which may not be covered by insurance or may be in excess of our insurance coverage. Additionally, we could become the subject of regulatory action or investigation, litigation, including class actions, or other claims and our competitive position could be harmed and the further development of our products could be delayed. If such an event were to occur and cause interruptions in our operations, it could result in a material disruption of our business and could materially and adversely affect our business, results of operations and financial condition.

Actual or perceived failures to comply with applicable data protection, privacy and security laws, regulations, standards and other requirements could adversely affect our business, results of operations and financial condition.

The global data protection landscape is rapidly evolving, and we are or may become subject to state, federal and foreign laws, regulations, decisions and directives governing the privacy, security, collection, storage, transmission, use, processing, retention and disclosure of personal information. Any failure or perceived failure by us to comply with applicable laws or regulations, our internal policies and procedures or our contracts governing our processing of personal information could result in negative publicity, government investigations and enforcement actions, claims by third parties and damage to our reputation, any of which could have a material adverse effect on our operations, financial performance and business.

In the United States, Health Insurance Portability and Accountability Act ("HIPAA") imposes, among other things, certain standards relating to the privacy, security, transmission and breach reporting of certain individually identifiable health information. We may obtain health information from third parties, such as research institutions with which we collaborate, that are subject to privacy and security requirements under HIPAA. Although we do not believe that we are directly subject to HIPAA, other than potentially with respect to providing certain employee benefits, we could be subject to criminal penalties if we knowingly obtain or disclose individually identifiable health information maintained by a HIPAA covered entity in a manner that is not authorized or permitted by HIPAA. Certain states have also adopted and continue to adopt new privacy and security laws and regulations, which govern the privacy, processing and protection of health-related and other personal information. Such laws and regulations will be subject to interpretation by various courts and other governmental authorities, thus creating potentially complex compliance issues for us and our future customers and strategic partners. For example, the California Consumer Privacy Act ("CCPA") requires in-scope businesses to, among other things: provide certain disclosures to California residents regarding the business's collection, use, and disclosure of their personal information; receive and respond to requests from California residents to access, delete, and correct their personal information, or to opt-out of certain disclosures of their personal information; and enter into specific contractual provisions with service providers that process California resident personal information on the business's behalf. The CCPA also provides for civil penalties for violations, as well as a private right of action for certain data breaches (which has increased the likelihood of, and risks associated with, data breach litigation). Similar laws regulating personal information generally or health information in particular have passed in other states and have been proposed in additional states and at the federal level, reflecting a trend toward more stringent privacy legislation in the United States. The same is true for emerging laws and regulations related to AI. These developments increase our compliance burden and our risk, including risks of regulatory fines, litigation and associated reputational harm. Any liability from failure to comply with the requirements of these laws could adversely affect our financial condition.

Furthermore, the Federal Trade Commission ("FTC") and many state Attorneys General continue to enforce federal and state consumer protection laws against companies for the collection, use, sharing and security of personal information that appear to be unfair or deceptive. For example, according to the FTC, failing to take appropriate steps to keep consumers' personal information secure can constitute unfair acts or practices in or affecting commerce in violation of Section 5(a) of the Federal Trade Commission Act. The FTC expects a company's data security measures to be reasonable and appropriate in light of the sensitivity and volume of consumer information it holds, the size and complexity of its business, and the cost of available tools to improve security and reduce vulnerabilities.

In the EU, the EU General Data Protection Regulation ("EU GDPR") governs the processing of personal data. The United Kingdom ("UK") has implemented the EU GDPR as the UK GDPR which sits alongside the UK Data Protection Act 2018 (the "UK GDPR", and together with the EU GDPR, the "GDPR"). The GDPR imposes requirements for controllers, including (among others) specific requirements for obtaining valid consent where consent is the legal basis for processing, requirements around accountability and transparency, the obligation to consider data protection when any new products or services are developed, the obligation to comply with individuals' data protection rights, and the obligation to notify relevant data supervisory authorities of notifiable personal data breaches without undue delay (and no later than 72 hours) after becoming aware of the personal data breach (and affected data subjects where the personal data breach is likely to result in a high risk to their rights and freedoms). The EU GDPR provides that EU member states may enact their own additional national laws and regulations regarding the processing of genetic, biometric or health data, which could affect our ability to use and share personal data or could cause our costs to increase and potentially harm our business and financial condition. Failure to comply with the requirements of the GDPR can result in (among other things) fines of up to the greater of €20 million (under the EU GDPR) or £17.5 million (under the UK GDPR) or 4% of an organization's total worldwide annual turnover of the preceding financial year and other administrative penalties. To the extent that we are subject to the GDPR, compliance with the GDPR may require substantial amendments to our procedures and policies and these changes could adversely impact our business by increasing operational and compliance costs or impact business practices. Further, there is a risk that the amended policies and procedures will not be implemented correctly or that individuals within the business will not be fully compliant with the new procedures. There is a risk that we could be impacted by a cybersecurity incident that results in loss or unauthorized disclosure of personal data, potentially resulting in us facing harms similar to those described above.

Among other requirements, the EU GDPR prohibits the international transfer of personal data subject to the EU GDPR from the European Economic Area ("EEA") to third countries that the European Commission does not recognize as having an 'adequate' level of data protection, unless a data transfer mechanism (such as, EU Standard Contractual Clauses or "EU SCCs") has been put in place or a derogation under the EU GDPR can be relied on. In certain cases, companies must also carry out a transfer privacy impact assessment ("TIA") which, among other things, assesses laws governing access to personal data in the recipient country and considers whether supplementary measures that provide privacy protections additional to those provided under the EU SCCs will need to be implemented to ensure an 'essentially equivalent' level of data protection to that afforded in the EEA. In July 2023, the European Commission adopted its Final Implementing Decision granting the United States adequacy ("Adequacy Decision") for EU-U.S. transfers of personal data for entities self-certified to the Atlantic Data Privacy Framework ("DPF"). Entities relying on EU SCCs for transfers to the United States are also able to rely on the analysis in the Adequacy Decisions as support for their TIA regarding the equivalence of U.S. national security safeguards and redress.

The UK GDPR also imposes similar restrictions on transfers of personal data from the UK to jurisdictions that the UK Government does not consider adequate, including the United States. The UK Government has published its own form of the EU SCCs, known as the International Data Transfer Agreement and an International Data Transfer Addendum to the EU SCCs. The UK Information Commissioner's Office has also published its own version of the TIA, although entities may choose to adopt either the EU or UK-style TIA. Further, on September 21, 2023, the UK Secretary of State for Science, Innovation and Technology established a UK-U.S. data bridge (i.e., a UK equivalent of the Adequacy Decision) and adopted UK regulations to implement the UK-U.S. data bridge. Personal data may now be transferred from the UK under the UK-U.S. data bridge through the UK extension to the DPF to organizations self-certified under the UK extension to the DPF.

We expect the existing legal complexity and uncertainty regarding international personal data transfers to continue and international transfers to the United States and to other jurisdictions more generally to continue to be subject to enhanced scrutiny by regulators. As the regulatory guidance and enforcement landscape in relation to data transfers continue to develop, we could suffer additional costs, complaints and/or regulatory investigations or fines, and/or if we are otherwise unable to transfer personal data between and among countries and regions in which we operate, it could affect the manner in which we operate our business, the geographical location or segregation of our relevant systems and operations, and could adversely affect our financial results.

As we continue to expand into other foreign countries and jurisdictions, we may be subject to additional laws and regulations that may affect how we conduct business.

Although we work to comply with applicable laws, regulations and standards, our contractual obligations and other legal obligations, these requirements are evolving and may be modified, interpreted and applied in an inconsistent manner from one jurisdiction to another, and may conflict with one another or other legal obligations with which we must comply. Various federal, state and foreign legislative or regulatory bodies may enact new or additional laws and regulations concerning privacy, data-retention and data-protection issues, including laws or regulations mandating disclosure to domestic or international law enforcement bodies, which could adversely impact our business or our reputation with customers. For example, some countries have adopted laws mandating that certain personal information regarding customers in their country be maintained solely in their country. Having to maintain local data centers and redesign product, service and business operations to limit processing of personal information to within individual countries could increase our operating costs significantly. Any failure, or perceived failure, by us to comply with federal, state or international privacy, data-retention or data-protection-related laws, regulations, orders or industry self-regulatory principles could result in proceedings or actions against us by governmental entities or others, a loss of customer confidence, damage to our brand and reputation and a loss of customers, any of which could have an adverse effect on our business.

Our business may be affected by the evolving regulatory framework for AI Technologies

We use AI, machine learning, and automated decision-making technologies, (collectively, "AI Technologies") throughout our business, and are making investments in this area. We expect that increased investment will be required in the future to continuously improve our use of AI Technologies. As with many technological innovations, there are significant risks involved in developing, maintaining and deploying these technologies, including that AI-generated content, analyses, or recommendations we utilize could be deficient, that our competitors may more quickly or effectively adopt AI capabilities, or that our use of AI or other emerging technologies increases regulatory, cybersecurity and other significant risks. There can be no assurance that the usage of or our investments in such technologies will always enhance our products or services or be beneficial to our business, including our efficiency or profitability.

In particular, if the models underlying our AI Technologies are: incorrectly designed or implemented; trained or reliant on incomplete, inadequate, inaccurate, biased or otherwise poor quality data, or on data to which we do not have sufficient rights or in relation to which we and/or the providers of such data have not implemented sufficient legal compliance measures; used without sufficient oversight and governance to ensure their responsible use; and/or adversely impacted by unforeseen defects, technical challenges, cybersecurity threats or material performance issues, the performance of our products, services and business, as well as our reputation, could suffer or we could incur liability resulting from the violation of laws or contracts to which we are a party or civil claims.

We are in varying stages of development in relation to our products and internal business processes involving AI Technologies. The continuous development, maintenance and operation of our AI Technologies is expensive and complex, and may involve unforeseen difficulties including material performance problems, undetected defects or errors. For instance, the models underlying AI Technologies can experience decay (also known as "model drift") in which its performance and accuracy decreases over time without further human intervention to correct such decay.

We may not be successful in our ongoing development and maintenance of these technologies in the face of novel and evolving technical, reputational and market factors. Our efforts to develop proprietary AI models could increase our operating costs. Our ability to develop proprietary AI models may be limited by our access to processing infrastructure or training data, and we may be dependent on third-party providers for such resources.

The regulatory framework for AI Technologies is rapidly evolving as many federal, state, and foreign government bodies and agencies have introduced or are currently considering additional laws and regulations. Additionally, existing laws and regulations may be interpreted in ways that would affect the operation of our AI Technologies. As a result, implementation standards and enforcement practices are likely to remain uncertain for the foreseeable future, and we cannot yet determine the impact future laws, regulations, standards, or market perception of their requirements may have on our business and may not always be able to anticipate how to respond to these laws or regulations. Failure to appropriately respond to this evolving landscape may result in reputational, competitive and business harm as well as litigation and regulatory action and fines, penalties and expenses related thereto.

It is possible that new laws and regulations will be adopted in the United States and in other non-U.S. jurisdictions, or that existing laws and regulations, including competition and antitrust laws, may be interpreted in ways that would limit our ability to use AI Technologies for our business, or require us to change the way we use AI Technologies in a manner that negatively affects the performance of our products, services, and business and the way in which we use AI Technologies. We may need to expend resources to adjust our products or services in certain jurisdictions if the laws, regulations, or

decisions are not consistent across jurisdictions. Further, the cost to comply with such laws, regulations, or decisions and/or guidance interpreting existing laws, could be significant and would increase our operating expenses (such as by imposing additional reporting obligations regarding our use of AI Technologies). Such an increase in operating expenses, as well as any actual or perceived failure to comply with such laws and regulations, could adversely affect our business, financial condition and results of operations.

Evolving expectations around corporate responsibility practices, specifically related to environmental, social and governance ("ESG") matters, may expose us to reputational and other risks.

Investors, stockholders, customers, suppliers and other third parties are increasingly focusing on ESG and corporate social responsibility endeavors and reporting. Companies that do not adapt to or comply with the evolving investor or stakeholder expectations and standards, or that are perceived to have not responded appropriately, may suffer from reputational damage, which could result in the business, financial condition and/or stock price of a company being materially and adversely affected. For example, certain customers have inquired about our ESG practices and may impose ESG guidelines, procurement policies, sustainability standards, mandates or reporting requirements for, and may scrutinize relationships more closely with, their suppliers, including us, which may lengthen sales cycles, increase our costs or impair our ability to attract and retain customers. Further, this increased focus on ESG issues may result in new regulations, international accords and/or third-party requirements that could adversely impact our business, or lead to certain stockholders reducing or eliminating their holdings of our stock. For example, California has passed new laws regarding environmental disclosures that may directly impact us in the future. If we are held to be out of compliance with such laws or other similar laws, we could face penalties and/or reputational harm. We may also be subject to new rules and laws that reflect competing trends in the ESG space, leading to difficulties in compliance. At the same time, certain governmental representatives and other stakeholders have increasingly expressed or pursued opposing views, legislation and investment expectations around sustainability initiatives, including the enactment or proposal of "anti-ESG" legislation or policies. An allegation or perception that we have not taken sufficient action or have taken the wrong actions in these areas could negatively harm our business and reputation.

ITEM 1B. UNRESOLVED STAFF COMMENTS

Not applicable.

ITEM 1C. CYBERSECURITY

Risk Management and Strategy

In the normal course of business, we may collect and store personal information and other sensitive information, including proprietary and confidential business information, trade secrets, intellectual property, sensitive third-party information and employee information. We assess and identify cybersecurity risk to such information by maintaining cybersecurity policies that require continuous monitoring and detection programs and network security precautions. Our cybersecurity risk management program incorporates industry-standard frameworks, policies and practices designed to protect the confidentiality, integrity, and availability of our sensitive information. This does not imply that we meet any particular technical standards, specifications, or requirements, only that we use NIST Cybersecurity Framework as a guide to help us identify, assess, and manage cybersecurity risks relevant to our business.

Key elements of our cybersecurity risk management program include but are not limited to the following elements.

We have a security team principally responsible for managing (1) our cybersecurity risk assessment processes, (2) our security controls, and (3) our response to cybersecurity incidents. We manage cybersecurity risks by maintaining various protections designed to safeguard against cyberattacks, including firewalls and virus detection software, and periodic training on common cybersecurity threats (e.g. phishing exercises and interactive trainings) including for incident response personnel and senior management. We have established a cybersecurity incident response plan that includes procedures for responding to cybersecurity incidents. In addition, we periodically conduct risk assessments designed to help identify material risks from cybersecurity threats to our critical systems and information, including scans of our environment for any vulnerabilities and penetration testing. With respect to key third party service providers affecting critical business management systems, we collect and maintain SOC2 or SOC1 type II reports (attestation of controls at a service organization over a minimum six-month period) based on their respective risk profile. For other third-party service providers, cybersecurity risk is addressed as appropriate. We also engage third parties to assess effectiveness of our data security practices. A third party security service provider and consultant conducts regular network security reviews, scans and audits, and we may consult with other external experts as warranted by a particular cybersecurity incident or threat. In addition, we maintain insurance that includes cybersecurity coverage.

Areas of cybersecurity risk are assessed every two years, and updates are reported by our Chief Financial Officer to the Board's Audit Committee and senior management annually. Where our bi-annual cybersecurity risk assessment identifies areas for improvement, we document and track our remediation activities, which are also reported to the Audit Committee and senior management annually. In this way, our program to manage cybersecurity risk integrates with our overall risk management processes.

As of the date of this report, we are not aware of any risks from cybersecurity threats that have materially affected or are reasonably likely to materially affect us, including our business strategy, results of operations and financial condition. Despite the implementation of our cybersecurity program, our security measures cannot guarantee that a cyberattack will not occur. A cyberattack on our information technology systems could have significant consequences to the business. While we devote resources to our security measures to protect our systems and information, these measures cannot provide absolute security. See "Risk Factors – General Risk Factors" for additional information about the risks to our business associated with a breach or compromise to our information technology systems.

Governance

The Company's Board of Directors has visibility into cybersecurity risks through its Audit Committee and through the process described below. The Audit Committee has oversight of the Company's cybersecurity risk management programs and the design and operating effectiveness thereof, and reviews reports from Company management on cybersecurity, data privacy and other risks relevant to the Company's computerized information system controls and security.

Further, the Audit Committee generally reports to the full Board of Directors regarding its activities, including those related to cybersecurity. The Board of Directors also periodically receives briefings from management on our cyber risk management program. Board members receive presentations on cybersecurity topics from management, internal security staff or external experts as part of the Board of Director's continuing education on topics that impact public companies].

Senior management has appointed a Cybersecurity Council that is responsible for identifying, escalating, and facilitating the assessment and determination of the materiality of cybersecurity incidents and threats. The Cybersecurity Council is made up of representatives of IT, Legal and Finance, as well as ad hoc additional members depending on the circumstances of the incident or threat. The members of the Cybersecurity Council do not have specific expertise in cybersecurity risk other than the Vice President of Information Technology ("VP of IT") who has more than 20 years of experience and engages with trusted third-party experts for support and guidance when additional expertise is required. The Company's cybersecurity capability continues to utilize an external cybersecurity specialist with extensive experience managing cybersecurity functions, including overseeing cybersecurity strategy and operations, incident response, threat intelligence, security awareness training programs, risk assessments and remediation, and regulatory and compliance matters.

Our IT Security team takes steps to stay informed about and monitor efforts to prevent, detect, mitigate, and remediate cybersecurity risks and incidents through various means, which may include: briefings from internal security personnel; threat intelligence and other information obtained from governmental, public or private sources, including external consultants engaged by us; and alerts and reports produced by security tools deployed in our IT environment.

In an event that an actual or suspected cybersecurity incident that jeopardizes the confidentiality, integrity, or availability of Codexis' information systems or any information residing therein is identified (or threat that presents significant risk to our information systems as identified by IT) it is reported to the Cybersecurity Council by our VP of IT. The focus of the Cybersecurity Council is on the investigation and facilitation of senior management's assessment and determination of materiality of an incident or threat, and such investigation is separate but contemporaneous with the investigation(s) done under other applicable programs, policies, and plans regarding cybersecurity. The Cybersecurity Council will liaise directly with other investigation(s) and share information and assessments. Along with assistance from the Cybersecurity Council as necessary, senior management reports its materiality determination and analysis, including necessary facts to support its determination, to the Audit Committee of the Board of Directors. Pursuant to its charter, the Audit Committee may, along with senior management, report such determination to the Board of Directors.

ITEM 2. PROPERTIES

FACILITIES

Our headquarters are located in Redwood City, California, where we lease approximately 77,300 square feet of office and laboratory space.

Our lease ("RWC Lease") with Metropolitan Life Insurance Company ("MetLife") includes approximately 28,200 square feet of space located at 200 and 220 Penobscot Drive, Redwood City, California (the "200/220 Penobscot Space"), approximately 37,900 square feet of space located at 400 Penobscot Drive, Redwood City, California (the "400 Penobscot Space") (the 200/220 Penobscot Space and the 400 Penobscot Space are collectively referred to as the "Penobscot Space"), and approximately 11,200 square feet of space located at 501 Chesapeake Drive, Redwood City, California (the "Chesapeake Space").

We entered into the initial lease with MetLife for our facilities in Redwood City in 2003 (the "RWC Lease") and the RWC Lease has been amended multiple times since then to adjust the leased space and terms of the RWC Lease. In December 2024, we entered into a Ninth Amendment to the RWC Lease (the "Ninth Amendment") with MetLife with respect to the Penobscot Space and the Chesapeake Space to extend the term of the RWC Lease for additional periods. Pursuant to the Ninth Amendment, the term of the lease for both the Penobscot Space and the Chesapeake Space has been extended through August 2032. We have one option to extend the term of the lease for the Penobscot Space for five years, and one separate option to extend the term of the lease for the Chesapeake Space for five (5) years.

In November 2025, we entered into a lease agreement with 30831 Huntwood Avenue LLC ("Huntwood") for approximately 34,000 square feet of office, laboratory, research and development, and manufacturing space located at 30831 Huntwood Avenue, Hayward, California (the "Huntwood Space"). The lease term for the Huntwood Space is through the end of November 2031. We have two options to extend the term of the lease for the Huntwood Space, each allowing for an additional period of five years. We anticipate commencing occupancy of the Huntwood Space in the first quarter of 2027.

We believe that the facilities that we currently lease in Redwood City and Hayward, California are adequate for our needs for the immediate future and that, should it be needed, additional space can be leased to accommodate any future growth.

ITEM 3. LEGAL PROCEEDINGS

We are currently not a party to any material pending litigation or other material legal proceedings.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

MARKET INFORMATION

Our common stock is quoted on the Nasdaq Global Select Market ("Nasdaq"), under the symbol "CDXS."

As of March 5, 2026, there were approximately 113 stockholders of record. A substantially greater number of stockholders may be "street name" or beneficial holders, whose shares are held of record by banks, brokers and other financial institutions.

Dividend Policy

We have never declared or paid cash dividends on our common stock, and we currently do not plan to declare dividends on shares of our common stock in the foreseeable future. We expect to retain our future earnings, if any, for use in the operation and expansion of our business. In addition, unless waived, the terms of our five-year term loan and security agreement (the "Loan Agreement") with Innovatus Life Sciences Lending Fund I, LP ("Innovatus") prohibit us from paying any cash dividends or making other distributions. The payment of cash dividends in the future, if any, will be at the discretion of our Board of Directors and will depend upon such factors as earnings levels, capital requirements, our overall financial condition and any other factors deemed relevant by our Board of Directors.

Securities Authorized for Issuance under Equity Compensation Plans

The information required by this item concerning securities authorized for issuance under equity compensation plans is incorporated by reference from the information that will be set forth in the Definitive Proxy Statement to be filed with the Securities and Exchange Commission in connection with the Annual Meeting of Stockholders to be held in 2026 (the "2026 Proxy Statement").

Unregistered Sales of Equity Securities and Use of Proceeds

During the year ended December 31, 2025, we did not issue or sell any unregistered securities not previously disclosed in a Quarterly Report on Form 10-Q or in a Current Report on Form 8-K.

Issuer Purchases of Equity Securities

None.

ITEM 6. [RESERVED]

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following management's discussion and analysis of our financial condition and results of operations should be read in conjunction with our audited consolidated financial statements and the related notes thereto included elsewhere in this Annual Report on Form 10-K. This Annual Report on Form 10-K contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). These statements include, but are not limited to, expectations regarding our strategy, business plans, financial performance and developments relating to our industry. These statements are often identified by the use of words such as "may," "will," "expect," "believe," "anticipate," "intend," "could," "should," "estimate," or "continue," and similar expressions or variations. Such forward-looking statements are subject to risks, uncertainties and other factors that could cause actual results and the timing of certain events to differ materially from future results expressed or implied by such forward-looking statements. Factors that could cause or contribute to such differences include, but are not limited to, those discussed in Part I, Item 1A: "Risk Factors," of this Annual Report on Form 10-K and elsewhere in this report. The forward-looking statements in this Annual Report on Form 10-K represent our views as of the date of this Annual Report on Form 10-K. We anticipate that subsequent events and developments will cause our views to change. However, while we may elect to update these forward-looking statements at some point in the future, we have no current intention of doing so except to the extent required by applicable law. You should, therefore, not rely on these forward-looking statements as representing our views as of any date subsequent to the date of this Annual Report on Form 10-K.

Business Overview

We are a leading provider of technology solutions to improve therapeutics manufacturing. We focus on impacting the manufacturing process by using our proprietary CodeEvolver directed evolution technology platform to discover, develop, enhance, and commercialize novel, high-performance enzymes and other classes of proteins. Enzymes are naturally occurring biological molecules critical to almost all biochemical reactions. They can be precisely engineered and optimized for specific functions, and to have particular characteristics, such as an ability to survive environments in which natural enzymes cannot, or to perform (bio)chemical transformations that are different than those for which they naturally evolved. We employ our technology and expertise to enhance the properties and performance of enzymes to drive pivotal improvements in manufacturing of complex therapeutics across two key areas:

ECO Synthesis manufacturing platform

Our ECO Synthesis® manufacturing platform is comprised of enzymatic tools and processes that are designed to enable large-scale manufacture of RNA interference ("RNAi") therapeutics. We use the CodeEvolver platform technology to develop enzymes for the synthesis of RNAi therapeutics in production processes that deliver improvements, including purity, yield, and manufacturing efficiency. In November 2024, we presented data at the TIDES Europe conference demonstrating the successful end-to-end enzymatic synthesis of an entire commercially approved small interfering ribonucleic acid ("siRNA") therapeutic asset with the ECO Synthesis manufacturing platform. In addition to using full enzymatic sequential synthesis, adding one nucleotide at a time to synthesize the two strands from beginning to end, we demonstrated synthesis of the same siRNA asset using three other routes utilizing enzymatic ligation with our double-stranded RNA ("dsRNA") ligase, which can stitch together fragments of chemically and/or enzymatically synthesized RNA to form the full siRNA drug structure. For the three other routes, our data highlighted that full-length oligonucleotides of equal quality and yields were obtained whether the fragments were made with enzymes or by traditional solid phase oligonucleotide synthesis ("SPOS") (current standard production route for oligonucleotide manufacturing). At the end of 2024, we completed the build out of our ECO Synthesis Innovation Lab, a facility where our ECO Synthesis manufacturing platform is deployed to synthesize gram-scale quantities of a customer's desired siRNA construct suitable for pre-clinical testing. In addition, the infrastructure allows us to provide process development, analytical method development and other manufacturing process optimization which is required to enable the siRNA to proceed to clinical-stage manufacturing and testing. In 2025, we successfully manufactured non-good manufacturing practice ("GMP")-grade siRNA drug substance for customers in our Innovation Lab under development services contracts. We also entered into partnerships with three large-scale contract development and manufacturing organizations ("CDMOs") to evaluate our ECO platform of enzymatic tools and processes to ultimately synthesize GMP-grade siRNA drug substance for our customers. In each of these agreements, we are currently in the feasibility testing stage and expect to advance at least one of these partnerships, including initiating a technology transfer to that organization, in 2026. We believe these relationships to be a vital extension of our strategy to be a technology solutions provider for our customers. Through these arrangements, our customers will have access to proven, large-scale commercial manufacturers who are familiar with our process, who can then offer a seamless manufacturing scale-up of our customers' products. We expect to expand our enzymatic tools and process offerings as we further enhance the ECO Synthesis platform to address the overall market needs for scalable and sustainable RNAi manufacturing.

Small molecule pharma biocatalysis

In our small molecule pharma biocatalysis business, we utilize our CodeEvolver technology platform to develop optimized enzymes that are used by some of the world's largest pharmaceutical companies to improve the efficiency and productivity of their manufacturing processes for small molecule therapeutics. Our unique enzymes drive improvements such as higher yields, increased purity, reduced energy usage and waste generation, all of which lead to improved efficiency and reduced costs in small-molecule manufacturing.

Financing Activities

In May 2021, we filed a Registration Statement on Form S-3 with the SEC, that automatically became effective upon its filing, under which we may sell common stock, preferred stock, debt securities, warrants, purchase contracts, and units from time to time in one or more offerings. On February 27, 2023, we filed a post-effective amendment to that Registration Statement on Form S-3. Pursuant to that post-effective amendment, we registered an aggregate $200.0 million of securities. In May 2021, we entered into an Equity Distribution Agreement ("EDA") with Piper Sandler & Co. ("PSC"), under which PSC, as our exclusive agent, at our discretion and at such times that we determined from time to time, may have sold over a three-year period from the execution of the EDA up to a maximum of $50.0 million of shares of our common stock. Under the terms of the EDA, PSC was permitted to sell the shares at market prices by any method that is deemed to be an "at the market offering" as defined in Rule 415 under the Securities Act of 1933, as amended (the "Securities Act"). We were not required to sell any shares at any time during the term of the EDA. On April 24, 2024, we terminated the EDA. No shares of our common stock were issued and sold pursuant to the EDA during the year ended December 31, 2024. During the year ended December 31, 2023, 3,079,421 shares of our common stock were issued and sold pursuant to the EDA for gross proceeds of $8.7 million, or $7.9 million in net proceeds after PSC's commissions and direct offering expenses of $0.7 million.

On May 2, 2024, we entered into a Controlled Equity Offering Sales℠ Agreement (the "Cantor Sales Agreement") with Cantor Fitzgerald & Co., as sales agent ("Cantor"), under which Cantor, at our discretion and at such times that we may determine from time to time, may sell up to a maximum of $75.0 million of shares of our common stock. Under the terms of the Cantor Sales Agreement, Cantor may sell the shares at market prices by any method that is deemed to be an "at the market offering" as defined in Rule 415 under the Securities Act. On May 2, 2024, we filed a registration statement on Form S-3 registering the offer and sale of these shares under the Securities Act which became effective on May 14, 2024. We will pay a commission of up to 3.0% of gross sales proceeds of any common stock sold under the Cantor Sales Agreement. In 2024, 10,440,000 shares of our common stock were issued and sold pursuant to the Cantor Sales Agreement and we received net proceeds of $29.7 million after Cantor's commissions and direct offering expenses. During the year ended December 31, 2025, 7,244,966 shares of our common stock were issued and sold pursuant to the Cantor Sales Agreement, all during the second quarter of 2025, and we received net proceeds of $16.4 million after Cantor's commissions and direct offering expenses. As of December 31, 2025, $26.4 million remained available for sale under the Cantor Sales Agreement.

On February 13, 2024, we entered into a five-year term loan and security agreement (the "Loan Agreement") with Innovatus Life Sciences Lending Fund I, LP ("Innovatus"), an affiliate of Innovatus Capital Partners, LLC, as Lender, consisting of up to two tranches, of which the first tranche of $30.0 million was disbursed upon execution of the Loan Agreement and the second tranche of $10.0 million was funded on June 27, 2025 upon achievement of certain financial milestones. The Term Loan carries an interest-only period of 36 months (with the possibility to extend up to 48 months upon achievement of certain pre-specified financial milestones) and will bear interest at a floating rate of the sum of (a) the greater of (i) prime rate and (ii) 7.50%, plus (b) 3.25%.

RESULTS OF OPERATIONS

The following table shows the amounts from our consolidated statements of operations for the periods presented (in thousands, except percentages):

	Year Ended December 31,			% of Total Revenues		
	2025	2024	2023	2025	2024	2023
Revenues:						
Product revenue	$ 26,028	$ 36,786	$ 42,906	37 %	62 %	61 %
Research and development revenue	44,359	22,559	27,237	63 %	38 %	39 %
Total revenues	70,387	59,345	70,143	100 %	100 %	100 %
Costs and operating expenses:						
Cost of product revenue	9,338	16,288	12,809	13 %	27 %	18 %
Research and development	52,307	46,263	58,885	74 %	78 %	84 %
Selling, general and administrative	47,074	55,148	53,250	67 %	93 %	76 %
Restructuring charges	3,407	—	3,284	5 %	— %	5 %
Asset impairment and other charges	—	165	9,984	— %	— %	14 %
Total costs and operating expenses	112,126	117,864	138,212	159 %	198 %	197 %
Loss from operations	(41,739)	(58,519)	(68,069)	(59)%	(99)%	(97)%
Interest income	2,625	3,670	4,172	4 %	6 %	6 %
Interest and other expense, net	(4,813)	(10,393)	(12,274)	(7)%	(17)%	(18)%
Loss before income taxes	(43,927)	(65,242)	(76,171)	(62)%	(110)%	(109)%
Provision for income taxes	47	34	69	— %	— %	— %
Net loss	$ (43,974)	$ (65,276)	$ (76,240)	(62)%	(110)%	(109)%

Revenues

Our revenues consist of product revenue and research and development revenue as follows:

- Product revenue consists of sales of biocatalysts used in the manufacture of small molecule active pharmaceutical intermediates, enzymes such as dsRNA ligase used in the manufacture of siRNA molecules, enzymes for the molecular biology and diagnostic markets, and Codex™ biocatalyst panels and kits.
- Research and development revenue includes license, technology access and exclusivity fees, research services fees, milestone payments, royalties, optimization and screening fees.

Revenues are as follows (in thousands, except percentages):

				Change			
	Year Ended December 31,			2025		2024	
	2025	2024	2023	$	%	$	%
Product revenue	$ 26,028	$ 36,786	$ 42,906	$ (10,758)	(29)%	$ (6,120)	(14)%
Research and development revenue	44,359	22,559	27,237	21,800	97 %	(4,678)	(17)%
Total revenues	$ 70,387	$ 59,345	$ 70,143	$ 11,042	19 %	$ (10,798)	(15)%

Revenues typically fluctuate on a quarterly basis due to the variability in our customers' manufacturing schedules and the timing of our customers' clinical trials. In addition, we have limited internal capacity to manufacture enzymes. As a result, we are dependent upon the performance and capacity of third-party manufacturers for the commercial scale manufacturing of the enzymes used in our pharma biocatalysis, ECO and molecular biology and diagnostics enzymes businesses.

We accept purchase orders for deliveries covering periods from one day up to 14 months from the date on which the order is placed. However, some of our purchase orders can be revised or cancelled by the customer without penalty. Considering these industry practices and our experience, we do not believe the total of customer purchase orders outstanding (backlog) provides meaningful information that can be relied on to predict actual sales for future periods.

2025 compared to 2024

Total revenues increased by $11.0 million in 2025 to $70.4 million, as compared to 2024. The increase was primarily driven by higher research and development revenue as compared to the prior year.

Product revenue was $26.0 million in 2025, a decrease of 29% compared with $36.8 million in 2024. The decrease in product revenue was primarily due to variability in manufacturing schedules and timing in clinical trial progression of our customers, which impacted order volumes for our enzyme products.

Research and development revenue increased by $21.8 million in 2025 to $44.4 million, or 97% compared with $22.6 million in 2024. The increase was primarily due to $34.0 million higher revenue from our licensing agreements with Merck entered into during the second and fourth quarters of 2025, and $3.3 million higher revenue from existing and legacy collaboration agreements. This increase was partially offset by the non-recurrence of $6.0 million revenue from our licensing agreement with Roche Sequencing Solutions, Inc. ("Roche") entered into in February 2024, and $9.5 million of revenue related to a license agreement with Pfizer Inc. ("Pfizer") entered into in December 2024.

2024 compared to 2023

For a discussion of our results of operations pertaining to 2024 as compared to 2023 see Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations" in our Annual Report on Form 10-K for the year ended December 31, 2024 (filed with the Securities and Exchange Commission on February 27, 2025).

Costs and Operating Expenses (in thousands, except percentages):

	Year Ended December 31,			Change 2025		Change 2024	
	2025	2024	2023	$	%	$	%
Cost of product revenue	$ 9,338	$ 16,288	$ 12,809	$ (6,950)	(43)%	$ 3,479	27 %
Research and development	52,307	46,263	58,885	6,044	13 %	(12,622)	(21)%
Selling, general and administrative	47,074	55,148	53,250	(8,074)	(15)%	1,898	4 %
Restructuring charges	3,407	—	3,284	3,407	100 %	(3,284)	(100)%
Asset impairment and other charges	—	165	9,984	(165)	(100)%	(9,819)	(98)%
Total costs and operating expenses	$ 112,126	$ 117,864	$ 138,212	$ (5,738)	(5)%	$ (20,348)	(15)%

Costs of Product Revenue and Product Gross Margin

The following table shows the amounts of our product revenue, cost of product revenue, product gross profit and product gross margin from our consolidated statements of operations (in thousands, except percentages):

	Year Ended December 31,		Change		Year Ended December 31,		Change	
	2025	2024	$	%	2024	2023	$	%
Product revenue	$ 26,028	$ 36,786	$ (10,758)	(29)%	$ 36,786	$ 42,906	$ (6,120)	(14)%
Cost of product revenue[1]	9,338	16,288	(6,950)	(43)%	16,288	12,809	3,479	27 %
Product gross profit	$ 16,690	$ 20,498	$ (3,808)	(19)%	$ 20,498	$ 30,097	$ (9,599)	(32)%
Product gross margin (%)[2]	64 %	56 %			56 %	70 %		

[1] Cost of product revenue comprises both internal and third-party fixed and variable costs, including materials and supplies, labor, facilities and other overhead costs associated with our product revenue.

[2] Product gross margin is used as a performance measure to provide additional information regarding our results of operations on a consolidated basis.

Cost of product revenue decreased by $7.0 million in 2025 to $9.3 million, as compared to 2024. Product gross margins increased to 64% in 2025 as compared to 56% in 2024. The changes in cost of product revenue and product gross margin are primarily due to shift in sales toward more profitable products, and declines in less profitable legacy products.

Research and Development Expenses

Research and development expenses consist of costs incurred for internal projects as well as collaborative research and development activities. These costs primarily consist of (i) employee-related costs, which include salaries and other personnel-related expenses (including stock-based compensation), (ii) various allocable expenses, which include occupancy-related costs, supplies, depreciation of facilities and laboratory equipment, and (iii) external costs. Research and development expenses are expensed when incurred.

Research and development expenses were $52.3 million in 2025 compared to $46.3 million in 2024, an increase of $6.0 million, or 13%. This increase was primarily due to a $2.3 million increase in employee-related costs, $1.4 million in higher lab supplies, $3.7 million in higher allocable costs and $0.2 million in higher depreciation expenses. These were partially offset by a $1.3 million decrease from lower use of outside services related to Chemistry, Manufacturing and Controls procedures ("CMC") and $0.7 million in lower stock-based compensation expense.

Selling, General and Administrative Expenses

Selling, general and administrative expenses consist of employee-related costs, which include salaries and other personnel-related expenses (including stock-based compensation), hiring and training costs, consulting and outside services expenses (including audit and legal counsel-related costs), marketing costs, various allocable expenses, which include occupancy-related costs, depreciation expenses and amortization expenses.

Selling, general and administrative expenses were $47.1 million in 2025 compared to $55.1 million in 2024, a decrease of $8.1 million, or 15%. This decrease was primarily due to $2.7 million in lower stock-based compensation expense, $1.8 million in lower consulting and outside services, $2.6 million in lower legal fees, $1.5 million in lower allocable expenses and $0.6 million decrease in employee-related costs. This was partially offset by $1.1 million increase in lease and facilities associated costs.

Restructuring Charges

Restructuring charges consist of employee severance and other termination benefits due to workforce reduction plans that were initiated in the fourth quarter of 2025 and in the third quarter of 2023. There were no restructuring charges recognized for the year ended December 31, 2024. Restructuring charges were $3.4 million in 2025 and $3.3 million in 2023.

Asset Impairment and Other Charges

No asset impairment charges were recognized for the year ended December 31, 2025. Asset impairment and other charges for the year ended December 31, 2024 were $0.2 million related to a long-lived asset impairment charge in the second quarter of 2024. Asset impairment and other charges for the year ended December 31, 2023 were $10.0 million, consisting of a $9.2 million long-lived asset impairment charge and a $0.8 million goodwill impairment charge, all of which were non-cash charges.

Interest Income and Interest and Other Expense, net (in thousands, except percentages):

	Year Ended December 31,			Change			
				2025		2024	
	2025	2024	2023	$	%	$	%
Interest income	$ 2,625	$ 3,670	$ 4,172	$ (1,045)	(28)%	$ (502)	(12)%
Interest and other expense, net	(4,813)	(10,393)	(12,274)	(5,580)	(54)%	1,881	(15)%
Total other income (expense), net	$ (2,188)	$ (6,723)	$ (8,102)	$ 4,535	(67)%	$ 1,379	(17)%

Interest Income

Interest income decreased by $1.0 million in 2025 compared to 2024, primarily due to lower average cash, cash equivalents and short-term investments balances.

Interest and Other Expense, net

Interest and other expense, net, decreased by $5.6 million in 2025 compared to 2024, primarily due to the $6.9 million impairment of our investments in Molecular Assemblies, Inc. ("MAI") and seqWell Inc. ("seqWell") during the third and fourth quarter of 2024 that did not reoccur in the current year. This decrease was partially offset by higher interest related to the long-term debt due to the funding of the second tranche of the Innovatus Loan in June 2025.

Provision for Income Taxes (in thousands, except percentages):

	Year Ended December 31,			Change			
				2025		2024	
	2025	2024	2023	$	%	$	%
Provision for income taxes	$ 47	$ 34	$ 69	$ 13	38 %	$ (35)	(51)%

The provision for income taxes in 2025 and 2024 was primarily due to the accrual of interest and penalties on historic uncertain tax positions. The provision for income taxes in 2023 was primarily for fiscal year 2023 state income taxes and the accrual of interest and penalties on historic uncertain tax positions.

Net Loss

Net loss for 2025 was $44.0 million, or a net loss per basic and diluted share of $0.50. This compared to a net loss of $65.3 million, or $0.89 per basic and diluted share, for 2024. The decrease in net loss was primarily related to higher revenues and lower costs and operating expenses in 2025.

LIQUIDITY AND CAPITAL RESOURCES

Liquidity is the measurement of our ability to meet working capital needs and to fund capital expenditures. We have historically funded our operations primarily through cash generated from operations, stock option exercises and public and private offerings of our common stock. In addition, pursuant to our Loan Agreement with Innovatus, an affiliate of Innovatus Capital Partners, LLC, we borrowed $30.0 million from Innovatus, as Lender, on February 13, 2024 and borrowed an additional $10.0 million on June 27, 2025 upon the achievement of certain financial milestones. The Loan Agreement, which provided for an aggregate principal amount of up to $40.0 million, has a maturity date of February 13, 2029 (the "Innovatus Loan"). We actively manage our cash usage and investment of liquid cash to ensure the maintenance of sufficient funds to meet our working capital needs. Our cash and cash equivalents are held in U.S. banks.

Our primary uses of capital for the foreseeable future, including the next 12 months, are for compensation and related expenses, research and development expenses including manufacturing costs, laboratory and related supplies, legal and other regulatory expenses, and general overhead costs.

The following summarizes our cash and cash equivalents and short-term investments balances and working capital as of December 31, 2025, 2024 and 2023 (in thousands):

	December 31,		
	2025	2024	2023
Cash and cash equivalents	$ 50,793	$ 19,264	$ 65,116
Short-term investments	$ 27,416	$ 54,194	$ —
Working capital	$ 71,499	$ 75,124	$ 57,636

Sources of Capital

In addition to our existing cash and cash equivalents, short-term investments and revenue generated through our existing operations, we are eligible to earn milestone and other contingent payments for the achievement of defined collaboration objectives under our collaboration agreements. Our ability to earn these milestone and contingent payments and the timing of achieving these milestones is primarily dependent upon the outcome of our collaborators' research and development activities and is uncertain at this time.

We have historically experienced negative cash flows from operations as we continue to invest in key technology development projects and improvements to our CodeEvolver technology platform, develop and commercialize new and existing products including our ECO Synthesis manufacturing platform and expand our business development and collaboration with new customers. Our cash flows from operations will continue to be affected principally by product sales and product gross margins, sales from licensing our technology to major pharmaceutical companies, and collaborative research and development services provided to customers, as well as our headcount costs. Our primary source of cash flows from operating activities is cash receipts from our customers for purchases of products, collaborative research and development services, and licensing our technology to major pharmaceutical companies. Our largest uses of cash from operating activities are for employee-related expenditures, rent payments, inventory purchases to support our product sales and non-payroll research and development costs.

Loan Agreement and Term Loans

On February 13, 2024, we entered into the Loan Agreement with Innovatus consisting of up to two tranches, of which the first tranche of $30.0 million was disbursed upon execution of the Loan Agreement and the second tranche of $10.0 million was funded in June 2025 upon achievement of certain milestones including certain pre-specified revenue thresholds. Both tranches were subject to payment of a facility fee equal to 1.00% of the amount of such term loan. The Term Loan carries an interest-only period of 36 months (with the possibility to extend up to 48 months upon achievement of certain pre-specified financial milestones) and will bear interest at a floating rate of the sum of (a) the greater of (i) the prime rate and (ii) 7.50%, plus (b) 3.25%. As of December 31, 2025, we were in compliance with all covenants of the Loan Agreement.

Sales Agreements

On May 2, 2024, we entered into the Cantor Sales Agreement with Cantor, under which Cantor, at our discretion and at such times that we may determine from time to time, may sell up to a maximum of $75.0 million of shares of our common stock. Under the terms of the Cantor Sales Agreement, Cantor may sell the shares at market prices by any method that is deemed to be an "at the market offering" as defined in Rule 415 under the Securities Act. On May 2, 2024, we filed a registration statement on Form S-3 registering the offer and sale of these shares under the Securities Act which became effective on May 14, 2024. We will pay a commission of up to 3.0% of gross sales proceeds of any common stock sold under the Cantor Sales Agreement. In 2024, 10,440,000 shares of our common stock were issued and sold pursuant to the Cantor Sales Agreement, all during the third quarter of 2024, and we received net proceeds of $29.7 million after Cantor's commissions and direct offering expenses. During the year ended December 31, 2025, 7,244,966 shares of our common stock were issued and sold pursuant to the Cantor Sales Agreement, all during the second quarter of 2025, and we received gross proceeds of $17.3 million, or $16.4 million in net proceeds after Cantor's commissions and direct offering expenses of $0.8 million. As of December 31, 2025, $26.4 million of shares remained available for sale under the Cantor Sales Agreement.

Sales of our common stock under the Cantor Sales Agreement could be subject to business, economic or competitive uncertainties and contingencies, many of which may be beyond our control, and which could cause actual results from the sale of our common stock to differ materially from expectations.

Liquidity

We believe that our existing cash and cash equivalents, combined with our future expectations for product revenues, research and development revenue, and expense management will provide adequate funds for planned ongoing operations, capital expenditures and working capital requirements for at least the next 12 months. We have based this estimate on assumptions that may prove to be wrong, and we could utilize our capital resources sooner than we expect.

However, we may need additional capital if our current plans and assumptions change. In addition, we may choose to seek sources of capital, which may arise through a combination of equity offerings, debt financings, other third-party funding and other collaborations, strategic alliances and partnering arrangements, even if we believe we have generated sufficient cash flows to support our operating needs. Our need for additional capital will depend on many factors, including the financial success of our business, the spending required to develop and commercialize new and existing products including our ECO Synthesis manufacturing platform, the effect of any acquisitions of other businesses, technologies or facilities that we may make or develop in the future, our spending on new market opportunities, and the potential costs for the filing, prosecution, enforcement and defense of patent claims, if necessary. If our capital resources are insufficient to meet our capital requirements, and we are unable to enter into or maintain collaborations with partners that are able or willing to fund our development efforts or commercialize any products that we develop or enable, we will have to raise additional funds to continue the development of our technology and products and complete the commercialization of products, if any, resulting from our technologies. If future financings involve the issuance of equity securities, our existing stockholders would suffer dilution. In addition, under our Loan Agreement, we are subject to restrictive covenants that limit our ability to conduct our business and could be subject to additional covenants to the extent we seek other debt financing in the future. We may not be able to raise sufficient additional funds on terms that are favorable to us, if at all. If we fail to raise sufficient funds and fail to generate sufficient revenues to achieve planned gross margins and to control operating costs, our ability to fund our operations, take advantage of strategic opportunities, develop products or technologies, or otherwise respond to competitive pressures could be significantly limited. If this happens, we may be forced to delay or terminate development of new products or services, such as our ECO Synthesis manufacturing platform, or the commercialization of products resulting from our technologies, curtail or cease operations or obtain funds through collaborative and licensing arrangements that may require us to relinquish commercial rights, or grant licenses on terms that are not favorable to us. If adequate funds are not available, we will not be able to successfully execute our business plan or continue our business.

Cash Flows

The following is a summary of cash flows for the years ended December 31, 2025, 2024 and 2023 (in thousands):

	Year Ended December 31,		
	2025	2024	2023
Net cash used in operating activities	$ (19,376)	$ (49,410)	$ (52,638)
Net cash provided by (used in) investing activities	23,502	(56,980)	(4,858)
Net cash provided by financing activities	27,928	60,522	8,167
Net increase (decrease) in cash, cash equivalents and restricted cash	$ 32,054	$ (45,868)	$ (49,329)

Cash Flows from Operating Activities

The $30.0 million decrease in net cash used in operating activities in 2025 as compared to 2024 was primarily due to the receipt of a $37.8 million fee from Merck in the fourth quarter of 2025, which was partially offset by increased payments associated with higher operating costs and reduction in force.

Cash Flows from Investing Activities

The $80.5 million decrease in net cash used in investing activities in 2025 as compared to 2024 was primarily due to the net effect of higher proceeds from the maturity of short-term investments and lower cash utilized for purchase of short-term investments.

Cash Flows from Financing Activities

The $32.6 million decrease in net cash provided by financing activities in 2025 as compared to 2024, was primarily due to the $29.5 million proceeds from the first tranche of the Innovatus Loan in February 2024 and higher proceeds from issuance of common stock under the Cantor Sales Agreement in 2024, partially offset by the proceeds from the funding of the second tranche of the Innovatus Loan in June 2025.

OFF-BALANCE SHEET ARRANGEMENTS

As of December 31, 2025, we had no off-balance sheet arrangements as defined in Item 303 of Regulation S-K as promulgated by the SEC.

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

Management’s discussion and analysis of our financial condition and results of operations are based upon our consolidated financial statements. The consolidated financial statements have been prepared in conformity with generally accepted accounting principles in the United States and include our accounts and the accounts of our wholly owned subsidiaries. The preparation of our consolidated financial statements requires our management to make estimates, assumptions, and judgments that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the applicable periods. Management bases its estimates, assumptions and judgments on historical experience and on various other factors that are believed to be reasonable under the circumstances. Different assumptions and judgments would change the estimates used in the preparation of our consolidated financial statements, which, in turn, could change the results from those reported. Our management evaluates its estimates, assumptions and judgments on an ongoing basis.

The critical accounting policies requiring estimates, assumptions, and judgments that we believe have the most significant impact on our consolidated financial statements are described below.

Revenue Recognition

Our revenues are derived primarily from product revenue and collaborative research and development agreements. Some of our contracts with customers contain multiple products and services.

The majority of our collaborative contracts contain multiple revenue streams such as upfront and/or annual license fees, research and development services, contingent milestone payments upon achievement of contractual criteria, and royalty fees based on the licensees' product revenue or usage, among others. We determine the stand-alone selling price (“SSP”) and allocate consideration to distinct performance obligations.

We measure revenue based on the consideration specified in the contract with each customer, net of any sales incentives and taxes collected on behalf of government authorities. We recognize revenue in a manner that best depicts the transfer of promised goods or services to the customer, when control of the product or service is transferred to a customer. We make significant judgments when determining the appropriate timing of revenue recognition.

Product Revenue

Certain of our agreements provide options to customers which they can exercise at a future date, such as the option to purchase our product during the contract duration at discounted prices and an option to extend their contract, among others. In accounting for customer options, we determine whether an option is a material right and this requires us to exercise significant judgment. If a contract provides the customer an option to acquire additional goods or services at a discount that exceeds the range of discounts that we typically give for that product or service, or if the option provides the customer certain additional goods or services for free, the option may be considered a material right. If the contract gives the customer the option to acquire additional goods or services at their normal SSPs, we would likely determine that the option is not a material right and, therefore, account for it as a separate performance obligation when the customer exercises the option. We primarily account for options which provide material rights using the alternative approach available under the Accounting Standards Codification ("ASC") 606, as we concluded we meet the criteria for using the alternative approach. Therefore, the transaction price is calculated as the expected consideration to be received for all the goods and services we expect to provide. We update the transaction price for expected consideration, subject to constraint, each reporting period if our estimate of future goods to be ordered by customers change. Estimating expected consideration to be received under the alternative approach involves significant judgment.

Research and Development Revenue

The majority of our research and development agreements are based on a contractual rate per dedicated project team working on the project. The underlying product that we develop for customers does not create an asset with an alternative use to us and the customer receives benefits as we perform the work towards completion. Thus, our performance obligations are generally satisfied over time as the service is performed. We utilize an appropriate method of measuring progress towards the completion of our performance obligations to determine the timing of revenue recognition. For each performance obligation that is satisfied over time, we recognize revenue using a single measure of progress either based on hours incurred or output of services provided.

Our contracts frequently provide customers with rights to use or access our products or technology, along with other promises or performance obligations. We evaluate whether the license is distinct from other performance obligations based on whether the customer cannot benefit from the license on its own or together with readily available resources. When the license does not have standalone functionality and is interdependent with other promises, such as the receipt of essential enzyme starting materials, the rights to use the license and receipt of materials are treated as combined performance obligations. These combined performance obligations are considered interdependent and are recognized upon the later of the commencement of the license right or the transfer of control of the materials to the customer. If we determine that a license is distinct, we would recognize an allocable portion of the transaction price when the license is transferred to the customer, and the customer can use and benefit from it. We estimate the SSP for license rights by using historical information if licenses have been previously sold to customers.

At the inception of each arrangement that includes variable consideration such as development milestone payments, we evaluate whether the milestones are considered probable of being reached and estimate the amount to be included in the transaction price using the most likely amount method. If it is probable that a significant revenue reversal would not occur, the associated milestone value is included in the transaction price. Milestone payments that are not within our control or the control of the licensee, such as regulatory approvals, are not considered probable of being achieved until those approvals are received.

Our CodeEvolver platform technology transfer collaboration agreements typically include license fees, upfront fees, and variable consideration in the form of milestone payments, and sales or usage-based royalties. We have recognized revenues from our platform technology transfer agreements over time.

We also have an agreement under which we have granted a functional license to some elements of our biocatalyst technology. We will recognize revenues for the functional license at a point in time when the control of the license transfers to the customer.

For license agreements that include sales or usage-based royalty payments to us for which the license is the predominant item to which the royalty relates, we do not recognize revenue until the underlying sales of the product or usage has occurred. At the end of each reporting period, we estimate the royalty amount. We recognize revenue at the later of (i) when the related sale of the product occurs, or (ii) when the performance obligation to which some or all of the royalty has been allocated has been satisfied, or partially satisfied.

Impairment of Long-Lived Assets

We evaluate the carrying values of long-lived assets, which include property and equipment and right-of-use assets, whenever events, changes in business circumstances or our planned use of long-lived assets indicate that their carrying amounts may not be fully recoverable or that their useful lives are no longer appropriate. If these facts and circumstances exist, we assess for recovery by comparing the carrying values of long-lived assets with the future net undiscounted cash flows expected to be generated by the asset. If such assets are considered to be impaired, the impairment to be recognized is measured by the amount by which the carrying amount of the asset exceeds the fair value of the asset.

Recent Accounting Pronouncements

See Note 2, “Basis of Presentation and Summary of Significant Accounting Policies” in the Notes to the Consolidated Financial Statements set forth in Item 8 of this Annual Report on Form 10-K for a full description of recent accounting standards, including the respective dates of adoption and effects on our consolidated financial position, results of operations and cash flows.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Interest Rate Sensitivity

Our unrestricted cash, cash equivalents, and short-term investments in marketable securities total $78.2 million as of December 31, 2025. We primarily invest these amounts in money market funds and short-term debt which are held for working capital purposes. We do not enter into investments for trading or speculative purposes. As of December 31, 2025, the effect of a hypothetical 10% decrease in market interest rates would have a $0.2 million impact on a potential loss in future interest income and cash flows.

We are also exposed to market risk from changes in interest rates as a result of our indebtedness under the Innovatus Loan. At December 31, 2025, we had $41.2 million principal amount outstanding under the Innovatus Loan. The floating per annum interest rate of the Innovatus Loan is equal to the sum of (a) the greater of (i) prime rate published in the Money Rates section of the Wall Street Journal and (ii) 7.50%, plus (b) 3.25%; provided that, at the election of the Company, up to 2.00% of such rate shall be payable in-kind until the third anniversary of the closing date. An immediate 10% change in the prime interest rate would result in a $0.3 million impact on our results of operations over the next twelve months from December 31, 2025.

Foreign Currency Risk

Our results of operations and cash flows are subject to fluctuations due to changes in foreign currency exchange rates. In periods when the United States dollar (“USD”) declines in value as compared to the foreign currencies in which we incur expenses, our foreign-currency based expenses increase when translated into USD. Although substantially all of our sales are denominated in USD, future fluctuations in the value of the USD may affect the price competitiveness of our products outside the United States. Our most significant foreign currency exposure is due to non-functional currency denominated monetary assets, primarily currencies denominated in other than their functional currency. These non-functional currency denominated monetary assets are subject to re-measurement which may create fluctuations in interest and other expense, net, a component in our consolidated statement of operations and in the fair value of the assets in the consolidated balance sheets. As of December 31, 2025, the effect of a hypothetical 10% unfavorable change in exchange rates on currencies denominated in other than their functional currency is minimal.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

Codexis, Inc.

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors
Codexis, Inc.:

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Codexis, Inc. and subsidiaries (the Company) as of December 31, 2025 and 2024 , the related consolidated statement of operations, comprehensive loss, stockholders' equity, and cash flows for the years then ended, and the related notes (collectively, the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2025 and 2024, and the results of its operations and its cash flows for the years then ended, in conformity with U.S. generally accepted accounting principles.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits, we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that: (1) relates to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of a critical audit matter does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Sufficiency of audit evidence over revenue from contracted customers

As discussed in Note 3 to the consolidated financial statements, the Company recorded $70.4 million of total revenues for the year-ended December 31, 2025 comprised of $26.0 million of product revenue and $44.4 million of research and development revenue. As discussed in Note 2, the Company enters into contracts with customers, some of which contain multiple products and services. Further, the majority of the Company's collaborative contracts, including research and development agreements, contain multiple revenue streams. In determining the appropriate amount of revenue to be recognized for product revenue and research and development revenue, the Company performs the following steps: (i) identification of the promised goods or services in the contract; (ii) determination of whether the promised goods or services are performance obligations, including whether they are distinct in the context of the contract; (iii) measurement of the transaction price, including the constraint on variable consideration; (iv) allocation of the transaction price to the performance obligations based on estimated selling prices; and (v) recognition of revenue when, or as, the Company satisfies each performance obligation.

We identified the evaluation of the sufficiency of audit evidence over revenue as a critical audit matter. Evaluating the sufficiency of audit evidence obtained required subjective auditor judgment due to the volume of revenue streams and disparate nature of contracts with customers, which involved determining the contracts and related revenue transactions to test and evaluating the recognition and measurement of revenue with respect to certain contracts with considerations around multiple elements, material rights, or timing of recognition.

The following are the primary procedures we performed to address this critical audit matter. We applied auditor judgment to determine the nature and extent of procedures to be performed over revenue, including the determination of the types of contracts, transactions and measurement elements to test such as considerations of certain contracts with multiple elements, material rights, and timing of revenue recognition. We read a selection of contracts and evaluated the Company's identification and assessment of the contract terms impacting the recognition and measurement of revenue. For certain transactions, we inspected the terms of the contract, agreed such terms to underlying documentation, such as external and internal evidence as applicable, recalculated revenue based on the underlying documentation, and compared it to the amount of revenue recognized. We evaluated the sufficiency of audit evidence obtained by assessing the results of procedures performed, including the appropriateness of the nature and extent of such evidence.

/s/ KPMG LLP

We have served as the Company's auditor since 2024.

San Francisco, California
March 11, 2026

Report of Independent Registered Public Accounting Firm

Stockholders and Board of Directors
Codexis, Inc.
Redwood City, California

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated statements of operations, stockholders' equity, and cash flows of Codexis, Inc. (the "Company") for the year ended December 31, 2023, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the results of its operations and its cash flows for the year then ended, in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's consolidated financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud.

Our audit included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audit also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audit provides a reasonable basis for our opinion.

/s/ BDO USA, P.C.

We served as the Company's auditor from 2013 to 2024.

San Francisco, California
February 28, 2024

Codexis, Inc.
Consolidated Balance Sheets
(In Thousands, Except Per Share Amounts)

	December 31,	
	2025	2024
Assets		
Current assets:		
Cash and cash equivalents	$ 50,793	$ 19,264
Restricted cash, current	478	503
Short-term investments	27,416	54,194
Financial assets:		
Accounts receivable	8,757	11,920
Contract assets	492	4,375
Unbilled receivables	1,480	2,751
Total financial assets	10,729	19,046
Less: allowances	(43)	(162)
Total financial assets, net	10,686	18,884
Inventories	1,817	1,799
Prepaid expenses and other current assets	5,626	4,128
Total current assets	96,816	98,772
Restricted cash	1,612	1,062
Investment in non-marketable equity securities	2,498	2,798
Right-of-use assets - Operating leases, net	30,501	28,700
Property and equipment, net	13,024	14,197
Goodwill	2,463	2,463
Other non-current assets	883	1,019
Total assets	$ 147,797	$ 149,011
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	$ 1,554	$ 2,838
Accrued compensation	11,042	11,410
Other accrued liabilities	2,768	6,223
Current portion of lease obligations - Operating leases	2,944	2,827
Deferred revenue	7,009	350
Total current liabilities	25,317	23,648
Deferred revenue, net of current portion	360	100
Long-term lease obligations - Operating leases	30,159	28,163
Long-term debt	40,105	28,905
Other long-term liabilities	1,327	1,268
Total liabilities	97,268	82,084
Commitments and contingencies (Note 13)		
Stockholders' equity:		
Preferred stock, $0.0001 par value per share; 5,000 shares authorized, none issued and outstanding	—	—
Common stock, $0.0001 par value per share; 200,000 shares authorized; 90,478 and 81,850 shares issued and outstanding at December 31, 2025 and December 31, 2024, respectively	9	8
Additional paid-in capital	657,292	629,673
Accumulated other comprehensive income	8	52
Accumulated deficit	(606,780)	(562,806)
Total stockholders' equity	50,529	66,927
Total liabilities and stockholders' equity	$ 147,797	$ 149,011

See accompanying notes to consolidated financial statements

Codexis, Inc.
Consolidated Statements of Operations
(In Thousands, Except Per Share Amounts)

	Year Ended December 31,		
	2025	**2024**	**2023**
Revenues:			
Product revenue	$ 26,028	$ 36,786	$ 42,906
Research and development revenue	44,359	22,559	27,237
Total revenues	70,387	59,345	70,143
Costs and operating expenses:			
Cost of product revenue	9,338	16,288	12,809
Research and development	52,307	46,263	58,885
Selling, general and administrative	47,074	55,148	53,250
Restructuring charges	3,407	—	3,284
Asset impairment and other charges	—	165	9,984
Total costs and operating expenses	112,126	117,864	138,212
Loss from operations	(41,739)	(58,519)	(68,069)
Interest income	2,625	3,670	4,172
Interest and other expense, net	(4,813)	(10,393)	(12,274)
Loss before income taxes	(43,927)	(65,242)	(76,171)
Provision for income taxes	47	34	69
Net loss	$ (43,974)	$ (65,276)	$ (76,240)
Net loss per share, basic and diluted	$ (0.50)	$ (0.89)	$ (1.12)
Weighted average common stock shares used in computing net loss per share, basic and diluted	87,142	73,408	68,131

See accompanying notes to consolidated financial statements

Codexis, Inc.
Consolidated Statements of Comprehensive Loss
(In Thousands)

	Year Ended December 31,		
	2025	2024	2023
Net loss	$ (43,974)	$ (65,276)	$ (76,240)
Other comprehensive gain (loss):			
Unrealized gain (loss) on available-for-sale short-term investments, net of tax	(44)	52	—
Comprehensive loss	$ (44,018)	$ (65,224)	$ (76,240)

See accompanying notes to consolidated financial statements

Codexis, Inc.
Consolidated Statements of Stockholders' Equity
(In Thousands)

	Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount				
December 31, 2022	65,811	$ 6	$ 566,081	$ —	$ (421,290)	$ 144,797
Issuance of common stock upon exercise of stock options	283	—	559	—	—	559
Issuance of common stock upon release of stock awards	796	—	—	—	—	—
Issuance of common stock, net of issuance costs	3,080	1	7,931	—	—	7,932
Stock-based compensation	—	—	9,971	—	—	9,971
Taxes paid related to net share settlement of equity awards	(65)	—	(404)	—	—	(404)
Net Loss	—	—	—	—	(76,240)	(76,240)
December 31, 2023	69,905	7	584,138	—	(497,530)	86,615
Issuance of common stock upon exercise of stock options	399	—	1,291	—	—	1,291
Issuance of common stock upon release of stock awards	842	—	—	—	—	—
Issuance of common stock warrants in connection with debt issuance	—	—	859	—	—	859
Issuance of common stock under employee stock purchase plan	264	—	563	—	—	563
Issuance of common stock in connection with an equity sales agreement, net of issuance costs of $1,584	10,440	1	29,735	—	—	29,736
Stock-based compensation	—	—	13,087	—	—	13,087
Net Loss	—	—	—	—	(65,276)	(65,276)
Other comprehensive income	—	—	—	52	—	52
December 31, 2024	81,850	8	629,673	52	(562,806)	66,927
Issuance of common stock upon exercise of stock options	339	—	1,049	—	—	1,049
Issuance of common stock upon release of stock awards	766	—	—	—	—	—
Issuance of common stock under employee stock purchase plan	278	—	505	—	—	505
Issuance of common stock in connection with an equity sales agreement, net of issuance costs of $826	7,245	1	16,441	—	—	16,442
Stock-based compensation	—	—	9,624	—	—	9,624
Net Loss	—	—	—	—	(43,974)	(43,974)
Other comprehensive loss	—	—	—	(44)	—	(44)
December 31, 2025	90,478	$ 9	$ 657,292	$ 8	$ (606,780)	$ 50,529

See accompanying notes to consolidated financial statements

Codexis, Inc.
Consolidated Statements of Cash Flows
(In Thousands)

	Year Ended December 31,		
	2025	2024	2023
Operating activities:			
Net loss	$ (43,974)	$ (65,276)	$ (76,240)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization	5,248	4,946	5,518
Reduction in the carrying amount of right-of-use assets	3,044	3,184	4,405
Stock-based compensation	9,624	13,087	9,971
Provision (recovery) for credit losses	(113)	97	(65)
Asset impairment and other charges	—	165	9,984
Impairment of investment in non-marketable securities	300	6,902	12,215
Equity securities earned from research and development activities	—	—	(213)
Non-cash interest expense	1,305	885	—
Amortization of discount on short-term investments	(1,234)	(1,380)	—
Other non-cash items	6	(4)	4
Changes in operating assets and liabilities:			
Financial assets	8,507	1,252	20,247
Inventories	(19)	886	(656)
Prepaid expenses and other assets	(1,694)	893	(865)
Accounts payable	(1,286)	(2,567)	2,287
Accrued compensation and other accrued liabilities	(2,848)	1,982	(14,041)
Other long-term liabilities	(3,161)	(4,151)	(5,341)
Deferred revenue	6,919	(10,311)	(19,848)
Net cash used in operating activities	(19,376)	(49,410)	(52,638)
Investing activities:			
Purchase of property and equipment	(4,471)	(4,305)	(4,418)
Proceeds from sale of property and equipment	5	87	751
Purchases of short-term investments	(57,158)	(90,235)	—
Proceeds from maturity of short-term investments	85,126	35,500	—
Proceeds from sale of short-term investments	—	1,973	—
Investment in non-marketable securities	—	—	(1,191)
Net cash provided by (used in) investing activities	23,502	(56,980)	(4,858)
Financing activities:			
Proceeds from exercises of stock options	1,098	1,384	422
Proceeds from issuance of stock under employee stock purchase plan	505	646	—
Proceeds from issuance of common stock in connection with equity sales agreements	17,267	31,319	8,652
Costs incurred in connection with equity sales agreements	(836)	(1,706)	(503)
Proceeds from long-term debt	9,897	29,521	—
Payment of debt issuance costs	(3)	(642)	—
Taxes paid related to net share settlement of equity awards	—	—	(404)
Net cash provided by financing activities	27,928	60,522	8,167
Net increase (decrease) in cash, cash equivalents and restricted cash	32,054	(45,868)	(49,329)
Cash, cash equivalents and restricted cash at the beginning of the year	20,829	66,697	116,026
Cash, cash equivalents and restricted cash at the end of the year	$ 52,883	$ 20,829	$ 66,697

Supplemental disclosure of cash flow information:			
Interest paid	$ 3,149	$ 2,566	$ 44
Income taxes paid	$ —	$ 17	$ 194
Supplemental non-cash investing and financing activities:			
Capital expenditures incurred but not yet paid	$ 31	$ 566	$ 1,068

The following table provides a reconciliation of cash, cash equivalents and restricted cash reported within the consolidated balance sheets to the total of the same such amounts shown above (in thousands):

	Year Ended December 31,		
	2025	2024	2023
Cash and cash equivalents	$ 50,793	$ 19,264	$ 65,116
Restricted cash, current and non-current	2,090	1,565	1,581
Total cash, cash equivalents and restricted cash at the end of the period	$ 52,883	$ 20,829	$ 66,697

This table excludes short-term investments of $27.4 million and $54.2 million as of December 31, 2025 and 2024, respectively. Total cash, cash equivalents, and short-term investments as of December 31, 2025 and 2024 were $78.2 million and $73.5 million, respectively.

See accompanying notes to consolidated financial statements

Note 1. Description of Business

In these notes to the consolidated financial statements, the "Company," "we," "us," and "our" refers to Codexis, Inc. and its subsidiaries on a consolidated basis.

We discover, develop, enhance, and commercialize novel, high performance enzymes and other classes of proteins leveraging our proprietary CodeEvolver directed evolution technology platform.

The Company's operations are managed and reported to the Chief Executive Officer ("CEO"), our chief operating decision maker ("CODM"), on a consolidated basis as one reportable segment.

Note 2. Basis of Presentation and Summary of Significant Accounting Policies

Basis of Presentation and Principles of Consolidation

The accompanying consolidated financial statements have been prepared in accordance with generally accepted accounting principles in the United States of America ("GAAP") and the applicable rules and regulations of the Securities and Exchange Commission ("SEC") and include the accounts of Codexis, Inc. and its wholly-owned subsidiaries.

All intercompany balances and transactions have been eliminated in consolidation.

Use of Estimates

The preparation of our consolidated financial statements in conformity with GAAP requires us to make estimates, judgments and assumptions that may affect the reported amounts of assets, liabilities, equity, revenues and expenses and related disclosure of contingent assets and liabilities. We regularly assess these estimates which primarily affect revenue recognition, deferred revenue, inventories, valuation of equity investments, goodwill arising out of business acquisitions, accrued liabilities, stock awards, and the valuation allowances associated with deferred tax assets. Actual results could differ from those estimates and such differences may be material to the consolidated financial statements.

Foreign Currency Translation

The USD is the functional currency for our operations outside the United States. Accordingly, non-monetary assets and liabilities originally acquired or assumed in other currencies are recorded in USD at the exchange rates in effect at the date they were acquired or assumed. Monetary assets and liabilities denominated in other currencies are translated into United States dollars at the exchange rates in effect at the balance sheet date. Translation adjustments are recorded in other expense in the consolidated statements of operations. Gains and losses realized from non-USD transactions, including intercompany balances not considered as permanent investments, are included in other expense in the accompanying consolidated statements of operations.

Revenue Recognition

Our revenues are derived primarily from product revenue and collaborative research and development agreements. Some of our contracts with customers contain multiple products and services. We account for individual products and services separately if they are distinct-that is, if a product or service is separately identifiable from other items in the contract and if a customer can benefit from it on its own or with other resources that are readily available to the customer.

In determining the appropriate amount of revenue to be recognized as we fulfill our obligations under our product revenue and collaborative research and development agreements, we perform the following steps: (i) identification of the promised goods or services in the contract; (ii) determination of whether the promised goods or services are performance obligations, including whether they are distinct in the context of the contract; (iii) measurement of the transaction price, including the constraint on variable consideration; (iv) allocation of the transaction price to the performance obligations based on estimated selling prices; and (v) recognition of revenue when (or as) we satisfy each performance obligation.

The majority of our collaborative contracts contain multiple revenue streams such as upfront and/or annual license fees, fees for research and development services, contingent milestone payments upon achievement of contractual criteria, and royalty fees based on the licensees' product revenue or usage, among others. We determine the stand-alone selling price ("SSP") and allocate consideration to distinct performance obligations. Typically, we base our SSPs on our historical sales. If an SSP is not directly observable, then we estimate the SSP taking into consideration market conditions, forecasted sales, entity-specific factors and available information about the customer. We estimate the SSP for license rights by using historical information if licenses have been previously sold to customers.

We account for a contract with a customer when there is approval and commitment from both parties, the rights of the parties are identified, payment terms are identified, the contract has commercial substance and collectability of consideration is probable. Non-cancellable purchase orders received from customers to deliver a specific quantity of product, when combined with our order confirmation, in exchange for future consideration, create enforceable rights and obligations on both parties and constitute a contract with a customer.

We measure revenue based on the consideration specified in the contract with each customer, net of any sales incentives and taxes collected on behalf of government authorities. We recognize revenue in a manner that best depicts the transfer of promised goods or services to the customer, when control of the product or service is transferred to a customer. We make significant judgments when determining the appropriate timing of revenue recognition.

The following is a description of principal activities from which we generate revenue:

Product Revenue

Product revenue consists of sales of biocatalysts, pharmaceutical intermediates and Codex biocatalyst panels and kits. A majority of our product revenue is made pursuant to purchase orders or supply agreements and is recognized either at a point in time when the control of the product has been transferred to the customer which generally aligns with shipping terms, or over time as the product is manufactured because we have a right to payment from the customer under a binding, non-cancellable purchase order, and there is no alternate use of the product for us as it is specifically made for the customer's use.

Certain of our agreements provide options to customers which they can exercise at a future date, such as the option to purchase our product during the contract duration at discounted prices and an option to extend their contract, among others. In accounting for customer options, we determine whether an option is a material right and this requires us to exercise significant judgment. If a contract provides the customer an option to acquire additional goods or services at a discount that exceeds the range of discounts that we typically give for that product or service for the same class of customer, or if the option provides the customer certain additional goods or services for free, the option may be considered a material right. If the contract gives the customer the option to acquire additional goods or services at their normal SSPs, we would likely determine that the option is not a material right and, therefore, account for it as a separate performance obligation when the customer exercises the option. We primarily account for options which provide material rights using the alternative approach available pursuant to the applicable accounting guidance, as we concluded we meet the criteria for using the alternative approach. Therefore, the transaction price is calculated as the expected consideration to be received for all the goods and services we expect to provide under the contract. We update the transaction price for expected consideration, subject to constraint, each reporting period if our estimates of future goods to be ordered by customers change.

Research and Development Revenue

We perform research and development activities as specified in each respective customer agreement. We identify each performance obligation in our research and development agreements at contract inception. We allocate the consideration to each distinct performance obligation based on the SSP of each performance obligation. Performance obligations included in our research and services agreements typically include research and development services for a specified term, periodic reports and small samples of enzyme produced.

The majority of our research and development agreements are based on a contractual rate per dedicated project team working on the project. The underlying product that we develop for customers does not create an asset with an alternative use to us and the customer receives benefits as we perform the work towards completion. Thus, our performance obligations are generally satisfied over time as the service is performed. We utilize an appropriate method of measuring progress towards the completion of our performance obligations to determine the timing of revenue recognition. For each performance obligation that is satisfied over time, we recognize revenue using a single measure of progress either based on hours incurred or output of services provided.

Our contracts frequently provide customers with rights to use or access our products or technology, along with other promises or performance obligations. We evaluate whether the license is distinct from other performance obligations based on whether the customer cannot benefit from the license on its own or together with readily available resources. When the license does not have standalone functionality and is interdependent with other promises, such as the receipt of essential enzyme starting materials, the rights to use the license and receipt of materials are treated as combined performance obligations. These combined performance obligations are considered interdependent and are recognized upon the later of the commencement of the license right or the transfer of control of the materials to the customer. If we determine that a license is distinct and has significant standalone functionality, we recognize revenues from a functional license at a point in time when the license is transferred to the customer, and the customer can use and benefit from it. We estimate the SSP for license rights by using historical information if licenses have been previously sold to customers.

At the inception of each arrangement that includes variable consideration such as development milestone payments, we evaluate whether the milestones are considered probable of being reached and estimate the amount to be included in the transaction price using the most likely amount method. If it is probable that a significant revenue reversal would not occur, the associated milestone value is included in the transaction price. Milestone payments that are not within our control or the control of the licensee, such as regulatory approvals, are not considered probable of being achieved until those approvals are received. The transaction price is then allocated to each performance obligation on a relative stand-alone selling price basis, for which we recognize revenue as or when the performance obligations under the contract are satisfied. At the end of each subsequent reporting period, we re-evaluate the probability of achievement of such development milestones and any related constraint, and if necessary, adjust our estimate of the overall transaction price. Any such adjustments are recorded on a cumulative catch-up basis, which would affect license, collaboration and other revenues and earnings in the period of adjustment.

Our CodeEvolver technology platform transfer collaboration agreements typically include license fees, upfront fees, and variable consideration in the form of milestone payments, and sales or usage-based royalties. We have recognized revenues from our platform technology transfer agreements over time as our customer uses our technology.

For license agreements that include sales or usage-based royalty payments to us, we do not recognize revenue until the underlying sales of the product or usage has occurred. At the end of each reporting period, we estimate the royalty amount. We recognize revenue at the later of (i) when the related sale of the product occurs, or (ii) when the performance obligation to which some or all of the royalty has been allocated has been satisfied, or partially satisfied.

Practical Expedients, Elections, and Exemptions

We apply certain practical expedients available which permit us not to adjust the amount of consideration for the effects of a significant financing component if, at contract inception, the expected period between the transfer of promised goods or services and customer payment is one year or less.

We perform monthly services under our research and development agreements, and we use a practical expedient permitting us to recognize revenue at the same time that we have the right to invoice our customer for monthly services completed to date.

We have elected to treat shipping and handling activities as fulfillment costs.

We have elected to record revenue net of sales and other similar taxes.

Contract Assets

Contract assets include amounts related to our contractual right to consideration for completed performance obligations not yet invoiced. Contract assets are reclassified to receivables when the rights become unconditional.

Contract Liabilities

Contract liabilities are recorded as deferred revenues and include payments received in advance of performance under the contract. Contract liabilities are realized when the development services are provided to the customer or control of the products has been transferred to the customer. A portion of our contract liabilities relate to supply arrangements that contain material rights that are recognized using the alternative method, under which the aggregate amount invoiced to the customer for shipped products, including contractual fees, is higher than the amount of revenue recognized based on the transaction price allocated to the shipped products.

Contract Costs

We recognize a non-current asset for the incremental costs of obtaining a contract with a customer if the entity expects to recover such costs and if those costs would not have been incurred if the contract had not been obtained, such as commissions paid to sales personnel. We do not typically incur significant incremental costs because the compensation of our salespeople is not based on contracts closed but on a mixture of company goals, individual goals, and sales goals. If a commission paid is directly related to obtaining a specific contract, our policy is to capitalize and amortize such costs on a systematic basis, consistent with the pattern of transfer of the good or service to which the asset relates, and over a period beyond 12 months. Contract costs are reported in other non-current assets and were not significant in any of the periods presented.

Cost of Product Revenue

Cost of product revenue comprises both internal and third party fixed and variable costs including materials and supplies, labor, facilities, and other overhead costs associated with our product sales. Shipping costs are included in our cost of product revenue. Shipping costs were $0.9 million, $1.0 million, and $1.0 million for the years ended December 31, 2025, 2024, and 2023, respectively.

Fulfillment costs, such as shipping and handling, are recognized at a point in time and are included in cost of product revenue.

Cost of Research and Development Services

Cost of research and development services related to services under research and development agreements approximate the research funding over the term of the respective agreements and is included in research and development expense. Costs of services provided under license and platform technology transfer agreements are included in research and development expenses and are expensed in the periods in which such costs are incurred.

Research and Development Expenses

Research and development expenses consist of costs incurred for internal projects and partner-funded collaborative research and development activities, as well as license and platform technology transfer agreements, as mentioned above. These costs include our direct and research-related overhead expenses, which include salaries and other personnel-related expenses (including stock-based compensation), occupancy-related costs, supplies, and depreciation of facilities and laboratory equipment, as well as external costs, and are expensed as incurred. Costs to acquire technologies that are utilized in research and development and that have no alternative future use are expensed when incurred.

Advertising

Advertising costs are expensed as incurred and included in selling, general and administrative expenses in the consolidated statements of operations. Advertising costs were $0.1 million, nil, and $0.3 million for each of the years ended December 31, 2025, 2024 and 2023, respectively.

Stock-Based Compensation

We use the Black-Scholes-Merton option pricing model to estimate the fair value of stock options granted under our equity incentive plans and for our employee stock purchase plan (“ESPP”). The Black-Scholes-Merton option pricing model requires the use of assumptions, including the expected term of the award and the expected stock price volatility. The expected term is based on historical exercise behavior for similar awards, giving consideration to the contractual terms, vesting schedules and expectations of future employee behavior. We use historical volatility to estimate expected stock price volatility. The risk-free rate assumption is based on United States Treasury instruments whose terms are consistent with the expected term of the stock options. The expected dividend assumption is based on our history and expectation of dividend payouts.

Restricted Stock Units (“RSUs”), Restricted Stock Awards (“RSAs”) and performance-contingent restricted stock units (“PSUs”) are measured based on the fair market values of the underlying stock on the dates of grant. Performance based options (“PBOs”) are measured using the Black-Scholes-Merton option pricing model. The vesting of PBOs and PSUs awarded is conditioned upon the attainment of one or more performance objectives over a specified period and upon continued employment through the applicable vesting date. At the end of the performance period, shares of stock subject to the PBOs and PSUs vest based upon both the level of achievement of performance objectives within the performance period and continued employment through the applicable vesting date.

Stock-based compensation expense is calculated based on awards ultimately expected to vest and is reduced for estimated forfeitures at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates. The estimated annual forfeiture rates for stock options, RSUs, PSUs, PBOs, and RSAs are based on historical forfeiture experience.

The estimated fair value of stock options, RSUs, RSAs and shares to be issued under the ESPP are expensed on a straight-line basis over the vesting term of the grant and the estimated fair value of PSUs and PBOs are expensed using an accelerated method over the term of the award once management has determined that it is probable that the performance objective will be achieved. Compensation expense is recorded over the requisite service period based on management's best estimate as to whether it is probable that the shares awarded are expected to vest. Management assesses the probability of the performance milestones being met on a continuous basis.

Cash and Cash Equivalents

We consider all highly liquid investments with maturity dates of three months or less at the date of purchase to be cash equivalents. Cash and cash equivalents consist of cash on deposit with banks and money market funds. The majority of cash and cash equivalents is maintained with major financial institutions in the United States. Deposits with these financial institutions may exceed the amount of insurance provided on such deposits.

Restricted Cash

We are currently in the process of liquidating our Indian subsidiary. The local legal requirements for liquidation required us to maintain our subsidiary's cash balance in an account managed by a legal trustee to satisfy our financial obligations. This balance is recorded as current restricted cash on the consolidated balance sheets of $0.5 million as of December 31, 2025 and 2024.

Pursuant to the terms of our lease agreements, we obtained letters of credit collateralized by cash deposit balances of $1.6 million and $1.1 million as of December 31, 2025 and 2024, respectively. These cash deposits balances are recorded as non-current restricted cash on the consolidated balance sheets. For additional information, see Note 13, “Commitments and Contingencies.”

Short-term Investments

We classify all marketable debt securities that have effective maturities of three months or less from the date of purchase as cash equivalents and those with effective maturities of greater than three months as short-term investment securities in the consolidated balance sheets. We determine the appropriate classification of our short-term investments at the time of purchase and reevaluate such designation at each balance sheet date. We have classified and accounted for our short-term investments as available-for-sale. After consideration of our risk versus reward objectives, as well as our liquidity requirements, we may sell these debt securities prior to their effective maturities.

We carry these short-term investments at fair value, and report the unrealized gains and losses, net of taxes, as a component of stockholders’ equity, except for the changes in allowance for expected credit losses, which are included in “Interest and other expense, net” in the consolidated statements of operations. We determine any realized gains or losses on the sale of short-term investments on a specific identification method, and we record such gains and losses as a component of interest income.

Short-term investments are reviewed periodically for allowances for credit losses and impairment. When evaluating the investments, the Company reviews factors such as the extent to which the fair value of the security is less than the amortized cost basis, adverse conditions specifically related to the security, the financial condition of the issuer, the Company’s intent to sell, and whether it would be more likely than not that the Company would be required to sell the investments before the recovery of the amortized cost basis.

Fair Value Measurements

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. In determining fair value, we utilize valuation techniques that maximize the use of observable inputs and minimize the use of unobservable inputs to the extent possible and we consider counterparty credit risk in our assessment of fair value. Carrying amounts of financial instruments, including cash equivalents, accounts receivable, accounts payable, and accrued liabilities, approximate their fair values as of the balance sheet dates because of their short maturities.

The fair value hierarchy distinguishes between (1) market participant assumptions developed based on market data obtained from independent sources (observable inputs) and (2) an entity's own assumptions about market participant assumptions developed based on the best information available in the circumstances (unobservable inputs). The fair value hierarchy consists of three broad levels, giving the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1) and the lowest priority to unobservable inputs (Level 3). The three levels of the fair value hierarchy are described below:

- Level 1: Inputs that are unadjusted, quoted prices in active markets for identical assets or liabilities at the measurement date.
- Level 2: Inputs that are either directly or indirectly observable for the asset or liability through correlation with market data at the measurement date and for the duration of the instrument's anticipated life.
- Level 3: Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities, and which reflect management's best estimate of what market participants would use in pricing the asset or liability at the measurement date.

Concentrations of Credit Risk

Financial instruments that potentially subject us to significant concentrations of credit risk consist primarily of cash and cash equivalents, accounts receivable and unbilled receivables, contract assets, non-marketable securities, and restricted cash. Cash that is not required for immediate operating needs is invested principally in money market funds. Cash and cash equivalents are invested through banks and other financial institutions in the United States and India. Such deposits in those countries may be in excess of insured limits. The Company has not experienced material losses on its deposits of cash and cash equivalents.

We perform ongoing credit evaluations of our customer's financial condition whenever deemed necessary. We maintain an allowance for doubtful accounts based on the expected collectability of all financial assets, which takes into consideration an analysis of historical bad debts, specific customer creditworthiness and current economic trends. As of December 31, 2025, we had three customers that accounted for 67% of our accounts receivable balance. As of December 31, 2024, four customers accounted for 56% of our accounts receivable balance. We believe the accounts receivable balances from our largest customers do not represent a significant credit risk, based on cash flow forecasts, balance sheet analysis, and past collection experience.

Financial Assets and Allowances

We currently sell enzymes primarily to pharmaceutical and fine chemicals companies throughout the world by the extension of trade credit terms based on an assessment of each customer's financial condition. Trade credit terms are generally offered without collateral and may include an insignificant discount for prompt payment for specific customers. To manage our credit exposure, we perform ongoing evaluations of our customers' financial conditions. In addition, accounts receivable include amounts owed to us under our collaborative research and development agreements.

We recognize accounts receivable at invoiced amounts and we maintain a valuation allowance for credit losses using an impairment model (known as the "current expected credit loss model" or "CECL") based on estimates and forecasts of future conditions requiring recognition of a lifetime of expected credit losses at inception on our financing receivables measured at amortized costs which consisted of accounts receivable, contract assets, and unbilled receivables. We have determined that our financing receivables share similar risk characteristics including: (i) customer origination in the pharmaceutical and fine chemicals industry, (ii) similar historical credit loss pattern of customers (iii) no meaningful trade receivable differences in terms, (iv) similar historical credit loss experience and (v) our belief that the composition of certain assets are comparable to our historical portfolio used to develop loss history. As a result, we measured the allowance for credit loss ("ACL") on a collective basis. Our ACL methodology considers how long the asset has been past due, the financial condition of the customers, which includes ongoing quarterly evaluations and assessments of changes in customer credit ratings, and other market data that we believe are relevant to the collectability of the assets. Nearly all financing receivables are due from customers that are highly rated by major rating agencies and have a long history of no credit loss. We derive our ACL by establishing an impairment rate attributable to assets not yet identified as impaired.

Unbilled Receivable

The timing of revenue recognition may differ from the timing of invoicing to our customers. When we satisfy (or partially satisfy) a performance obligation, prior to being able to invoice the customer, we recognize an unbilled receivable when the right to consideration is unconditional.

Inventories

Inventories are stated at the lower of cost or net realizable value. Cost is determined using a weighted-average approach, assuming full absorption of direct and indirect manufacturing costs, or based on cost of purchasing from our vendors. If inventory costs exceed expected net realizable value due to obsolescence or lack of demand, valuation adjustments are recorded for the difference between the cost and the expected net realizable value.

Concentrations of Supply Risk

We rely on a limited number of suppliers for our products. We believe that other vendors would be able to provide similar products; however, the qualification of such vendors may require substantial start-up time. In order to mitigate any adverse impacts from a disruption of supply, we attempt to maintain an adequate supply of critical single-sourced materials. For certain materials, our vendors maintain a supply for us. We outsource the large-scale manufacturing of our products to contract manufacturers with facilities in Austria and Italy.

Property and Equipment

Property, equipment and leasehold improvements are stated at cost less accumulated depreciation and amortization calculated using the straight-line method over their estimated useful lives as follows:

Asset classification	Estimated useful life
Laboratory equipment	5 years
Computer equipment and software	3 years
Office equipment and furniture	5 years
Leasehold improvements	Lesser of useful life or lease term

Property and equipment classified as construction in process includes equipment that has been received but not yet placed in service. Normal repairs and maintenance costs are expensed as incurred.

Impairment of Long-Lived Assets

We evaluate the carrying values of long-lived assets, which include property and equipment and right-of-use assets, whenever events, changes in business circumstances or our planned use of long-lived assets indicate that their carrying amounts may not be fully recoverable or that their useful lives are no longer appropriate. If these facts and circumstances exist, we assess for recovery by comparing the carrying values of long-lived assets with their future net undiscounted cash flows expected to be generated by the asset. If such assets are considered to be impaired, the impairment to be recognized is measured by the amount by which the carrying amount of the asset exceeds the fair value of the asset. No impairment charges for long-lived assets were recorded during the year ended December 31, 2025. For additional information on the impairment charge recorded for the years ended December 31, 2024 and 2023, see Note 8, “Balance Sheet Details” and Note 13, “Commitments and Contingencies.”

Investment in Non-Marketable Equity Securities

We measure investments in non-marketable equity securities without a readily determinable fair value using a measurement alternative that measures these securities at the cost method minus impairment, if any, plus or minus changes resulting from observable price changes on a non-recurring basis. Gains and losses on these securities are recognized in interest and other expense, net.

We evaluate equity securities for impairment when circumstances indicate that we may not be able to recover the carrying value. We may impair these securities and establish an allowance for a credit loss when we determine that there has been an “other-than-temporary” decline in the estimated fair value of the equity security compared to its carrying value. We calculate the estimated fair value of these securities using information from the investee, which may include:

- Audited and unaudited financial statements;
- Projected technological developments of the company;
- Projected ability of the company to service its debt obligations;
- If a deemed liquidation event were to occur;
- Current fundraising transactions;

- Current ability of the company to raise additional financing if needed;
- Changes in the economic environment which may have a material impact on the operating results of the company;
- Contractual rights, obligations or restrictions associated with the investment; and
- Other factors deemed relevant by our management to assess valuation.

The valuation may be reduced if the company's potential has deteriorated significantly. If the factors that led to a reduction in valuation are overcome, the valuation may be readjusted. For additional information on the impairment charge recorded for the years ended December 31, 2025, 2024 and 2023, see Note 6, “Investments in Non-Marketable Securities.”

Goodwill

Goodwill represents the excess of the consideration transferred over the fair value of net assets of businesses acquired and is assigned to reporting units. We test goodwill for impairment, considering, among other factors, whether there have been sustained declines in our share price. If we conclude it is more likely than not that the fair value is less than its carrying amount, a quantitative fair value test is performed. Goodwill had a carrying value of $2.5 million as of December 31, 2025 and 2024.

We test goodwill for impairment annually, on the last day of the fourth fiscal quarter, and between annual tests if events and circumstances indicate it is more likely than not that the fair value is less than its carrying amount. The annual impairment test is completed using either: a qualitative “Step 0” assessment based on reviewing relevant events and circumstances; or a quantitative “Step 1” assessment, which determines the fair value. To the extent the carrying amount is less than its estimated fair value, an impairment charge is recorded. Using a relative fair value allocation methodology for assets and liabilities, we compare the carrying amount of net assets and the goodwill to its fair value. If the fair value exceeds its carrying amount, goodwill is considered not impaired. Any excess carrying amount of goodwill over its fair value is recognized as an impairment. No impairment charges related to goodwill were recognized in 2025 and 2024. We recorded impairment charges related to goodwill of $0.8 million for the year ended December 31, 2023. For additional information on the impairment charge recorded in 2023, see Note 8, “Balance Sheet Details.”

Lease Accounting

We determine if an arrangement is a lease at inception. Where an arrangement is a lease, we determine if it is an operating lease or a finance lease. At lease commencement, we record a lease liability and ROU asset. Lease liabilities represent the present value of our future lease payments over the expected lease term which includes options to extend or terminate the lease when it is reasonably certain those options will be exercised. The present value of our lease liability is determined using our incremental collateralized borrowing rate at lease inception. ROU assets represent our right to control the use of the leased asset during the lease and are recognized in an amount equal to the lease liability for leases with an initial term greater than 12 months. Over the lease term, we use the effective interest rate method to account for the lease liability as lease payments are made and the ROU asset is amortized to the consolidated statement of operations in a manner that results in straight-line expense recognition. We do not apply lease recognition requirements for short-term leases. Instead, we recognize payments related to these arrangements in the consolidated statement of operations as lease costs on a straight-line basis over the lease term.

Income Taxes

We use the liability method of accounting for income taxes, whereby deferred tax asset or liability account balances are calculated at the balance sheet date using current tax laws and rates in effect for the year in which the differences are expected to affect taxable income. Valuation allowances are provided when necessary to reduce deferred tax assets to the amount that will more likely than not be realized.

We make certain estimates and judgments in determining income tax expense for financial statement purposes. These estimates and judgments occur in the calculation of tax credits, benefits and deductions and in the calculation of certain tax assets and liabilities, which arise from differences in the timing of recognition of revenues and expenses for tax and financial statement purposes. Significant changes to these estimates may result in an increase or decrease to our tax provision in a subsequent period.

In assessing the realizability of deferred tax assets, we consider whether it is more likely than not that some portion or all of the deferred tax assets will be realized on a jurisdiction-by-jurisdiction basis. The ultimate realization of deferred tax assets is dependent upon the generation of taxable income in the future. In the event that it is determined that these deferred tax assets are not more likely than not to be realized, a valuation allowance is recorded against these deferred tax assets. As of December 31, 2025 and 2024, we maintain a full valuation allowance in all jurisdictions against the net deferred tax assets as we believe that it is more likely than not that the majority of deferred tax assets will not be realized.

We account for uncertainty in income taxes by evaluating each tax position to determine whether it is more likely than not that the position will be sustained upon examination by the relevant taxing authority, including the resolution of any related appeals or litigation. Tax positions that meet the recognition threshold are measured as the largest amount of tax benefit that is more than 50% likely of being realized upon ultimate settlement. It is inherently difficult and subjective to estimate such amounts, as this requires us to determine the probability of various possible outcomes. We consider many factors when evaluating and estimating our tax positions and tax benefits, which may require periodic adjustments and may not accurately anticipate actual outcomes.

We make estimates and judgments about our future taxable income that are based on assumptions that are consistent with our plans and estimates. Should the actual amounts differ from our estimates, the amount of our valuation allowance may be materially impacted. Any adjustment to the deferred tax asset valuation allowance would be recorded in the statements of operations for the periods in which the adjustment is determined to be required.

The Tax Reform Act of 1986 and similar state provisions limit the use of net operating loss ("NOL") carryforwards in certain situations where equity transactions result in a change of ownership as defined by Internal Revenue Code Section 382. In the event we should experience such a change of ownership, utilization of our federal and state NOL carryforwards could be limited.

Accounting Pronouncements

Recently adopted accounting pronouncements

In December 2023, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2023-09, *Income Taxes (Topic 740): Improvements to Income Tax Disclosures*. The amendments in the ASU require public companies, on an annual basis, to provide disclosures of specific categories in the rate reconciliation, as well as disclosure of income taxes paid disaggregated by jurisdiction. The Company adopted ASU 2023-09 on a prospective basis during the year ended December 31, 2025. The adoption did not have a material impact on the Company's consolidated financial statements or related disclosures. For additional information, see Note 12, "Income Taxes."

Aside from those recently issued accounting pronouncements adopted and described above and not yet adopted and described below, there have not been any recent accounting pronouncements or changes in accounting pronouncements during the year ended December 31, 2025 that are of significance or potential significance to us.

Recently issued accounting pronouncements not yet adopted

In November 2024, the FASB issued ASU No. 2024-03, *Income Statement-Reporting Comprehensive Income-Expense Disaggregation Disclosures (Subtopic 220-40): Disaggregation of Income Statement Expenses.* The amendment in the ASU will require additional disclosures and disaggregation of certain costs and expenses presented on the face of the income statement to provide greater transparency into the nature of expense components. In January 2025, the FASB issued ASU 2025-01, "*Income Statement-Reporting Comprehensive Income-Expense Disaggregation Disclosures (Subtopic 220-40) - Clarifying the Effective Date*" to clarify the effective date for non-calendar year-end entities. As clarified, this guidance is effective for public business entities for fiscal years beginning after December 15, 2026 and for interim periods within fiscal years beginning after December 15, 2027. Early adoption is permitted. We are currently evaluating the effects of the standard on our consolidated financial statements and related disclosures.

In October 2023, FASB issued ASU No. 2023-06, *Disclosure Improvements: Codification Amendments in Response to the SEC's Disclosure Update and Simplification Initiative*. The amendments in the ASU are intended to amend certain disclosure and presentation requirements for a variety of topics within the ASC. These amendments align the requirements in the ASC to the removal of certain disclosure requirements set out in Regulation S-X and Regulation S-K, as announced by the SEC. The effective date for each amended topic in the ASC is either the date on which the SEC's removal of the related disclosure requirement from Regulation S-X or Regulation S-K becomes effective, or on June 30, 2027, if the SEC has not removed the requirements by that date. Early adoption is prohibited. We are currently monitoring SEC rulemaking activity and evaluating the potential effects of this standard on our consolidated financial statements and related disclosures.

Note 3. Revenue Recognition

Disaggregation of Revenue

The following table provides information about disaggregated revenue from contracts with customers into the nature of the products and services, and geographic regions, and includes a reconciliation of the disaggregated revenue. The geographic regions that are tracked are the Americas (United States, Canada, and Latin America), EMEA (Europe, Middle East, and Africa), and APAC (Australia, New Zealand, Southeast Asia, and China).

Disaggregated information is as follows (in thousands):

	Year Ended December 31,		
	2025	2024	2023
Major products and service:			
Product revenue	$ 26,028	$ 36,786	$ 42,906
Research and development revenue	44,359	22,559	27,237
Total revenues	$ 70,387	$ 59,345	$ 70,143
Primary geographical markets:			
Americas	$ 43,537	$ 21,278	$ 13,733
EMEA	9,292	10,359	22,907
APAC	17,558	27,708	33,503
Total revenues	$ 70,387	$ 59,345	$ 70,143

For additional information regarding revenue disaggregated by geography, see Note 15, “Segment, Geographical and Other Revenue Information.”

Contract Balances

The following table presents balances of contract assets, unbilled receivables, and contract liabilities (in thousands):

	December 31, 2025	December 31, 2024
Contract assets	$ 492	$ 4,375
Unbilled receivables	$ 1,741	$ 3,208
Contract liabilities: deferred revenue	$ 7,369	$ 450

We recognize accounts receivable when we have an unconditional right to recognize revenue and have issued an invoice to the customer. Our payment terms are generally between 30 and 90 days. We recognize unbilled receivables when we have an unconditional right to recognize revenue and have not issued an invoice to our customer. Unbilled receivables are transferred to accounts receivable on issuance of an invoice. Unbilled receivables are classified separately on the consolidated balance sheets as an asset. We maintain an allowance for credit losses on accounts receivable and unbilled receivables. As of December 31, 2025, we have $1.5 million of short-term unbilled receivables presented as unbilled receivables within current assets and $0.3 million of long-term unbilled receivables that is included within the other non-current assets line item in the consolidated balance sheets. As of December 31, 2024, we had $2.8 million of short-term unbilled receivables presented as unbilled receivables within current asset and $0.5 million of long-term unbilled receivables that is included within the other non-current assets line item in the consolidated balance sheets.

Contract assets represent our right to recognize revenue for custom products with no alternate use and under binding non-cancellable contracts and are largely related to our procurement of product. We recognize contract assets when we have a conditional right to recognize revenue. The transfer of control of certain products occurs in advance of the invoicing process, which generates contract assets. In addition, we recognize a contract asset related to milestones when we assess it is probable of being achieved and there will be no significant reversal of cumulative revenues. Contract assets are classified separately on the consolidated balance sheets as an asset and transferred to accounts receivables when our rights to payment become unconditional.

Contract liabilities, or deferred revenue, represent our obligation to transfer a product or service to the customer, and for which we have received consideration from the customer. We recognize a contract liability when we receive advance customer payments under development agreements for research and development services, upfront license payments, and from upfront customer payments received under product supply agreements. Contract liabilities are classified as a liability on the consolidated balance sheets.

During the years ended December 31, 2025, 2024 and 2023, we had no asset impairment charges related to contract assets.

We recognized the following revenues (in thousands):

	Year Ended December 31,	
Revenue recognized in the period for:	**2025**	**2024**
Amounts included in contract liabilities at the beginning of the period:		
Performance obligations satisfied	$ 350	$ 10,121
Changes in the period:		
Changes in the estimated transaction price allocated to performance obligations satisfied in prior periods	(13)	314
Revenue recognized on performance obligations previously completed upon the customer achieving a milestone	4,700	—
Performance obligations satisfied from new activities in the period - contract revenue	65,350	48,910
Total revenues	$ 70,387	$ 59,345

Performance Obligations

The following table includes estimated revenue expected to be recognized in the future related to performance obligations that are unsatisfied or partially unsatisfied at the end of the reporting periods. The estimated revenue does not include contracts with original durations of one year or less, amounts of variable consideration attributable to royalties, or contract renewals that are unexercised as of December 31, 2025.

The balances in the table below are partially based on judgments involved in estimating future orders from customers subject to the exercise of material rights pursuant to respective contracts (in thousands):

	2026	**2027**	**2028**	**2029 and Thereafter**	**Total**
Product revenue	$ 640	$ 40	$ 40	$ 280	$ 1,000
Research and development revenue	6,369	—	—	—	6,369
Total	$ 7,009	$ 40	$ 40	$ 280	$ 7,369

Note 4. Net Loss per Share

Basic net loss per share is computed by dividing the net loss by the weighted-average number of shares of common stock outstanding, less RSAs subject to forfeiture. Diluted net loss per share is computed by dividing net loss by the weighted-average number of shares of common stock shares outstanding, less RSAs subject to forfeiture, plus all additional common shares that would have been outstanding, assuming dilutive potential common stock shares had been issued for other dilutive securities. For all periods presented, diluted and basic net loss per share are identical since potential common stock shares are excluded from the calculation, as their effect was anti-dilutive.

Anti-Dilutive Securities

In periods of net loss, the weighted average number of shares outstanding, prior to the application of the treasury stock method, excludes potentially dilutive securities from the computation of diluted net loss per common share because including such shares would have an anti-dilutive effect.

The following shares were not considered in the computation of diluted net loss per share because their effect was anti-dilutive (in thousands):

	Year Ended December 31,		
	2025	2024	2023
Shares issuable under the Equity Incentive Plans and ESPP[1]	11,173	13,613	9,028
Warrants[2]	424	424	—
Total potentially dilutive securities	11,597	14,037	9,028

[1] Included 541,616, 665,160, and 568,224 of anti-dilutive potential common shares from ESPP for the years ended December 31, 2025, 2024, 2023, respectively.
[2] Pertains to the warrants issued in connection with the Innovatus Loan. For additional information, see Note 14, "Debt."

Note 5. Collaborative Arrangements

Merck Sitagliptin Catalyst Supply Agreement

In February 2012, we entered into a five-year Sitagliptin Catalyst Supply Agreement (the "Sitagliptin Supply Agreement") with Merck Sharp & Dohme LLC ("Merck") whereby Merck may obtain commercial scale enzyme for use in the manufacture of Januvia, its product based on the active ingredient sitagliptin. In December 2015, Merck exercised its options under the terms of the Sitagliptin Supply Agreement to extend the agreement for an additional five years through February 2022, and the agreement was further amended in September 2021 to continue through December 2026. In May 2025, the Sitagliptin Supply Agreement was amended to extend the agreement through December 2034.

Effective January 2016, we and Merck amended the Sitagliptin Supply Agreement to implement variable pricing based on Merck's cumulative purchase volumes of sitagliptin enzyme. We have previously determined that this variable pricing provided Merck with material rights, and we recognized product revenues using the alternative method wherein we estimated the total expected consideration and allocated it proportionately with the expected sales. Pursuant to the amendment of the Sitagliptin Supply Agreement in September 2021, we have determined that the latest price per volume of sitagliptin enzyme to be purchased by Merck no longer provides Merck material rights, and as such we have recognized product revenue based on contractually stated prices effective as of February 2022.

We recognized $0.4 million, $7.1 million and $4.4 million in product revenue under this agreement in the years ended December 31, 2025, 2024 and 2023, respectively.

Merck Technology Transfer and License Agreements

In May 2025, we entered into a license agreement that provides Merck with limited rights to use our proprietary enzyme technology to enable the manufacture of essential enzyme materials for sitagliptin production under the existing Sitagliptin Supply Agreement. In connection with this agreement, we received a one-time, non-refundable license payment of $2.5 million, which we recognized as research and development revenue upon transfer of control of the licensed technology in the second quarter of 2025. The license agreement did not modify the rights, obligations, or pricing terms under the Sitagliptin Supply Agreement, which continues to govern the commercial supply of sitagliptin enzymes.

In October 2025, we entered into a Technology Transfer Agreement with Merck (the "Merck TTA"), as amended in December 2025, pursuant to which Merck made a one-time non-refundable and non-creditable payment of $37.8 million, which we received during the fourth quarter of 2025, in exchange for rights to access and use essential enzyme starting materials and license to related intellectual property for supply assurance purposes.

Pursuant to the Merck TTA, as amended, our performance obligation consists of transferring the essential enzyme materials to the Merck-authorized facility. Upon delivery, Merck obtains control of both the materials and the associated intellectual property rights, consistent with the terms of the Merck TTA. Because the license conveys a right to use existing intellectual property that does not require ongoing or future development activities, we determined that the obligation is satisfied at a point in time. Accordingly, we recognized $31.5 million in research and development revenue in the year ended December 31, 2025, when we fulfilled part of our obligation to deliver the materials and Merck obtained control of the licensed intellectual property. As of December 31, 2025, we had $6.3 million in deferred revenue related to the remaining materials expected to be delivered in the first quarter of 2026.

Nestlé Strategic Collaboration Agreement and Development Agreement

In October 2017, we entered into the Nestlé Strategic Collaboration Agreement (the "Nestlé SCA") with Nestlé Health Science ("Nestlé"), pursuant to which we and Nestlé collaborated to leverage the CodeEvolver technology platform to develop novel enzymes for Nestlé's established Consumer Care and Medical Nutrition business areas.

In January 2020, we entered into a development agreement with Nestlé pursuant to which we and Nestlé collaborated to advance a lead candidate discovered through our Nestlé SCA, CDX-7108, targeting exocrine pancreatic insufficiency, into preclinical and early clinical studies. We, together with Nestlé Health Science, initiated a Phase 1 clinical trial of CDX-7108 in the fourth quarter of 2021, and in February 2023, we and Nestlé announced interim results. In July 2023, we announced plans to discontinue our development support of CDX-7108.

In January 2024, both the Nestlé SCA and development agreement were terminated under the terms of the CDX-7108 Acquisition Agreement with Nestlé.

No revenue was recognized under the Nestlé SCA and the development agreement during the years ended December 31, 2025 and 2024. We recognized $4.1 million in research and development revenue under these agreements in the year ended December 31, 2023.

Nestlé CDX-7108 Acquisition Agreement

In December 2023, we entered into an acquisition agreement (the "Acquisition Agreement") with Nestlé, pursuant to which we agreed to assign our interests in CDX-7108 (including associated agreements and intellectual property rights) to Nestlé. Under the terms of the Acquisition Agreement, Nestlé will be solely responsible for the continued development and commercialization of CDX-7108, including all associated costs, and Codexis will receive an upfront payment, future potential milestone payments and net-sales based royalties. We recognized $5.0 million in research and development revenue for the year ended December 31, 2023 related to the Acquisition Agreement, with the $5.0 million upfront fee received in January 2024.

Novartis Platform Technology Transfer and License Agreement

In May 2019, we entered into a Platform Technology Transfer and License Agreement (the "Novartis CodeEvolver Agreement") with Novartis Pharma AG ("Novartis"). The Novartis CodeEvolver Agreement allows Novartis to use our proprietary CodeEvolver technology platform in the field of human healthcare. In July 2021, we announced the completion of the technology transfer period during which we transferred our proprietary CodeEvolver technology platform to Novartis (the "Technology Transfer Period").

Pursuant to the agreement, we received a $5.0 million upfront payment, a $4.0 million milestone payment upon completion of the second technology milestone in 2020, and an aggregate of $5.0 million payment for the completion of the third technology milestone in 2021. In consideration for the continued disclosure and license of improvements to the technology and materials during a multi-year period that began on the conclusion of the Technology Transfer Period (the "Improvements Term"), Novartis will pay us $8.0 million in aggregate annual payments over a four-year period, all of which were received from 2022 through 2025. The Company also has the potential to receive quantity-dependent, usage payments for each API that is manufactured by Novartis using one or more enzymes that have been developed or are in development using the CodeEvolver technology platform during the period beginning on the conclusion of the Technology Transfer Period and ending on the expiration date of the last to expire licensed patent.

Revenue for the combined initial license and technology transfer performance obligation was recognized over time based on hours incurred, and revenue allocated to improvements made during the Improvements Term is being recognized during the Improvements Term.

Under the Novartis CodeEvolver Agreement, we recognized $0.6 million, $1.0 million and $1.1 million in research and development revenue in the years ended December 31, 2025, 2024 and 2023, respectively.

Roche License Agreements

In December 2019, we entered into a license agreement with Roche to provide Roche with our evolved T4 DNA ligase high-performance molecular diagnostic enzyme. The royalty bearing license grants Roche worldwide rights to include the evolved T4 DNA ligase in its nucleic acid sequencing products and workflows. We received an upfront collaboration fee payment of $0.8 million following the execution of the agreement, and we received an additional $0.9 million milestone payment after the completion of technology transfer in October 2020.

In February 2024, we entered into a new license agreement with Roche granting them rights to our newly engineered DNA ligase, superseding our prior 2019 agreement. Under the new agreement, we received upfront and technical milestones payments. We recognized $6.0 million in research and development revenue in the year ended December 31, 2024 related to this license agreement.

Takeda Strategic Collaboration and License Agreement

In March 2020, we entered into a Strategic Collaboration and License Agreement (the "Takeda Agreement") with Shire Human Genetic Therapies, Inc., a wholly-owned subsidiary of Takeda Pharmaceutical Co. Ltd. ("Takeda"), to research and develop protein sequences for potential use in gene therapy products for certain diseases in accordance with each applicable program plan. On execution of the Takeda Agreement, we received an upfront non-refundable cash payment of $8.5 million and we initiated activities under three initial program plans for Fabry Disease, Pompe Disease, and an undisclosed blood factor deficiency, respectively. In May 2021, Takeda elected to exercise its option to initiate an additional program for a certain undisclosed rare genetic disorder; as a result, we received the option exercise fee during the third quarter of 2021. We completed the research and development services relating to the fourth program with Takeda during the second quarter of 2023. Revenue relating to the functional licenses provided to Takeda was recognized at a point in time when the control of the license transferred to the customer.

Pursuant to the Takeda Agreement, we were eligible to receive other payments that included (i) clinical development and commercialization-based milestones, per target gene, and (ii) tiered royalty payments based on net sales of applicable products at percentages ranging from the mid-single digits to low single-digits.

In April 2023, Takeda announced the discontinuation of these development programs, and in 2024 we divested our rights in some of the underlying assets to Crosswalk Therapeutics.

No revenue was recognized under the Takeda Agreement during the year ended December 31, 2025. We recognized research and development revenue under this agreement of $0.8 million and $2.0 million in the years ended December 31, 2024 and 2023, respectively.

Enzyme Supply Agreement and Commercial Agreement

In November 2016, we entered into an enzyme supply agreement with a customer, receiving an upfront payment recorded as deferred revenue which was recognized as the customer purchased our enzyme. In April 2019, we entered into a multi-year commercial agreement with the same customer for the exclusive use of our enzymes in some of their products, with royalties to be earned. Both the enzyme supply agreement and commercial agreement were terminated in 2023. Due to the early termination of the enzyme supply agreement in 2023, we recognized $3.2 million of product revenue from the release of prior periods' product revenue deferrals and also recognized an additional $1.3 million of product revenue as settlement fee.

Pfizer Enzyme Supply Agreement

During 2021 and 2022, we received significant purchase orders from Pfizer Inc. ("Pfizer") for CDX-616, our proprietary enzyme product used in the manufacture of nirmatrelvir, a key component of Pfizer's PAXLOVID product for the treatment of COVID-19 infections in humans. We supplied the CDX-616 enzymes under an Enzyme Supply Agreement with Pfizer Ireland Pharmaceuticals, a subsidiary of Pfizer (the "Pfizer Supply Agreement"). Under the terms of the Pfizer Supply Agreement, Pfizer paid us a fee of $25.9 million in August 2022, which was initially recorded as deferred revenue. Pursuant to the agreement, 90% of the fee ($23.3 million) was creditable toward (i) qualifying CDX-616 orders shipped through December 31, 2023, and (ii) fees associated with new development or licensing agreements with Pfizer entered into before April 4, 2023.

On March 31, 2023, we entered into a license agreement whereby Pfizer utilized a portion of the $23.3 million credit, for which we recognized $5.0 million as non-cash research and development revenue in the second quarter of 2023. We also recognized $2.0 million of non-cash research and development revenue, and credited against the $25.9 million fee, for other services provided to Pfizer in 2023. Credits under item (i) above expired on December 31, 2023, and credits under item (ii) above expired on April 4, 2023. During the fourth quarter of 2023, and pursuant to the Pfizer Supply Agreement, we released the prior year deferrals for the unused portion of the retainer fee that is not creditable beyond 2023 and we recognized product revenue of $8.2 million in the year ended December 31, 2023.

In December 2024, Pfizer applied the remaining available credit toward an upfront license fee under a new agreement, resulting in $9.5 million of non-cash research and development revenue in the year ended December 31, 2024, and no further credit remains available for Pfizer.

Note 6. Investments in Non-Marketable Securities

Non-Marketable Equity Securities

Our non-marketable equity securities are investments in privately held companies without readily determinable market value and primarily relate to our investments in seqWell Inc. ("seqWell") and other investments in non-marketable equity securities. These investments are accounted for under the measurement alternative and are measured at cost minus impairment, if any, plus or minus changes resulting from observable price changes for identical or similar securities of the same issuer. Non-marketable equity securities are measured at fair value on a non-recurring basis and classified within Level 2 in the fair value hierarchy when we estimate the fair value of these investments using the observable transaction price paid by third party investors for the same or similar security of the same issuers. The fair value of non-marketable equity securities are classified within Level 3 when we estimate fair value using unobservable inputs such as when we remeasure due to impairment and we use discount rates, market data of comparable companies, and rights and obligations of the securities the Company holds, among others. We adjust the carrying value of non-marketable equity securities which have been remeasured during the period and recognize resulting gains or losses as a component interest and other expense, net in the consolidated statements of operations.

In March 2022, we entered into a Stock Purchase Agreement with seqWell, a privately held life sciences company, pursuant to which we purchased 1,000,000 shares of seqWell's Series C preferred stock for $5.0 million. In March 2023, we entered into a Master Collaboration Agreement and Research Agreement with seqWell (the "seqWell Agreement"), pursuant to which we provided research and experimental screening and protein engineering activities in exchange for compensation in the form of additional shares of seqWell's common stock. In January 2025, we sold assets that were developed under the seqWell Agreement to seqWell in exchange for the right to receive a cash payment upon future events and a warrant to purchase seqWell's common stock exercisable upon future events, and terminated the seqWell Agreement. In addition to our initial equity investment and the shares we have received under the seqWell Agreement, in September 2023, we purchased an additional 88,256 shares of seqWell's Series C-1 preferred stock and 44,128 common stock warrants for $0.4 million. We received 205,279 shares of seqWell's common stock from research and development services with seqWell and we recognized $0.2 million in research and development revenue from these services in the year ended December 31, 2023. As of December 31, 2025, we held an aggregate of 1,088,256 shares of Series C and C-1 preferred stock, 205,279 shares of common stock and 44,128 of common stock warrants that we have earned or purchased from seqWell.

For the year ended December 31, 2025, we recognized a $0.3 million impairment charge on a non-marketable equity investment after concluding that the investee's ongoing liquidity challenges and lack of near-term financing or cash flows warranted a reduction in the investment's carrying value. The impairment reduced the carrying value of our investment to zero and is included within interest and other expense, net in the consolidated statements of operations,

For the year ended December 31, 2024, we recognized an impairment charge of $6.9 million which is presented within interest and other expense, net in the consolidated statements of operations. This adjustment included the write-down of our investment in Molecular Assemblies, Inc. ("MAI") by $3.9 million during the third quarter of 2024 to its related fair value as determined based on valuation methods using the latest observed transaction price of MAI's preferred stock securities anticipated to be issued during the fourth quarter of 2024 and adjusted for the rights and obligations of the preferred stock securities the Company holds, and an additional $2.8 million impairment charge during the fourth quarter of 2024 to adjust the carrying value of our investment in MAI to zero as the investee ceased its operations during the fourth quarter of 2024 due to liquidity position and lack of access to additional capital. The other $0.2 million of impairment charge on our investment in seqWell is related to the write-down to its estimated fair value using the recent transaction price of similar preferred stock securities issued by the investee and adjusted for the rights and obligations of the preferred stock securities the Company holds.

For the year ended December 31, 2023, we recognized an impairment charge of $12.2 million and included this as adjustment to the carrying value of our investments in seqWell, MAI and Arzeda Corp ("Arzeda"). This adjustment, which is presented within other income (expense), net in the consolidated statements of operations, included the write-down of the carrying value of our investment in seqWell by $3.0 million during the third quarter of 2023 to its estimated fair value as determined based on valuation methods using the recent transaction price of similar preferred stock securities issued by seqWell and adjusted for the rights and obligations of the preferred stock securities the Company holds. The $1.2 million of impairment charge on our investment in Arzeda is related to the write-down to its estimated fair value based on the latest observed transaction price of Arzeda's preferred stock securities issued during the fourth quarter of 2023 and the subsequent conversion of our existing Series B preferred stock into Arzeda's common stock during the fourth quarter of 2023. The other $8.0 million of impairment charge represents the difference between the estimated fair value and carrying value of our investment in MAI as of December 31, 2023, based on quantitative and qualitative analysis. This analysis involved use of judgment, estimates and assumptions, such as the near-term prospects of the investee in the market in which it operates, evaluation of the investee's financial condition in relation to its outstanding obligations, and probabilities of securing additional capital through various alternative scenarios.

Other than as disclosed above, there were no remeasurement events for our investments in non-marketable equity securities in 2025 and 2024. We recognized no realized gains or losses during the years ended December 31, 2025 and 2024.

The following table presents the carrying value of our non-marketable equity securities (in thousands):

	December 31, 2025	December 31, 2024
seqWell	$ 2,416	$ 2,416
Other investments in non-marketable equity securities	82	382
Total non-marketable equity securities	$ 2,498	$ 2,798

Note 7. Fair Value Measurements

The following tables show the Company's cash, cash equivalents, and short-term investments by significant investment category (in thousands):

	December 31, 2025					
	Amortized Cost	Unrealized Gains	Unrealized Losses	Fair Value	Cash and Cash Equivalents	Short-term Investments
Cash	$ 30,648	$ —	$ —	$ 30,648	$ 30,648	$ —
Level 1:						
Money market funds	17,156	—	—	17,156	17,156	—
Level 2[1]:						
Commercial paper	13,035	2	—	13,037	2,989	10,048
Corporate debt	499	—	—	499	—	499
U.S. agency securities	—	—	—	—	—	—
U.S. treasury securities	16,863	6	—	16,869	—	16,869
Subtotal	30,397	8	—	30,405	2,989	27,416
Total	$ 78,201	$ 8	$ —	$ 78,209	$ 50,793	$ 27,416

	December 31, 2024					
	Amortized Cost	Unrealized Gains	Unrealized Losses	Fair Value	Cash and Cash Equivalents	Short-term Investments
Cash	$ 3,284	$ —	$ —	$ 3,284	$ 3,284	$ —
Level 1:						
Money market funds	15,980	—	—	15,980	15,980	—
Level 2[1]:						
Commercial paper	6,768	1	—	6,769	—	6,769
Corporate debt	17,187	8	(15)	17,180	—	17,180
U.S. agency securities	1,989	2	—	1,991	—	1,991
U.S. treasury securities	28,198	56	—	28,254	—	28,254
Subtotal	54,142	67	(15)	54,194	—	54,194
Total	$ 73,406	$ 67	$ (15)	$ 73,458	$ 19,264	$ 54,194

[1] The valuation techniques used to measure the fair values of the Company's Level 2 financial instruments use inputs that are either directly or indirectly observable for the asset through correlation with market data at the measurement date and for the duration of the instrument's anticipated life.

We limit the credit risk associated with our cash equivalents and short-term investments by placing them with banks and institutions we believe are highly credit-worthy and investing in highly-rated investments. As of December 31, 2025, the contractual maturity of all investments held was less than one year.

During the years ended December 31, 2025 and 2024, we did not recognize any significant credit losses nor other-than-temporary impairment losses on our short-term investments.

Note 8. Balance Sheet Details

Inventories

Inventories consisted of the following (in thousands):

	December 31,	
	2025	2024
Work in process	$ —	$ 29
Finished goods	1,817	1,770
Total inventories	$ 1,817	$ 1,799

Prepaid expenses and other current assets

As of December 31, 2025, prepaid expenses and other current assets consists of prepaid expenses of $5.2 million and other current assets of $0.5 million. As of December 31, 2024, prepaid expenses and other current assets consists of prepaid expenses of $3.7 million and other current assets of $0.5 million.

Property and Equipment, net

Property and equipment, net consisted of the following (in thousands):

	December 31,	
	2025	2024
Laboratory equipment[1]	$ 38,943	$ 35,949
Leasehold improvements	15,229	12,159
Computer equipment	2,556	2,459
Office furniture and equipment	1,133	1,124
Construction in progress[2]	405	3,441
Property and Equipment	58,266	55,132
Less: accumulated depreciation	(45,242)	(40,935)
Property and equipment, net	$ 13,024	$ 14,197

[1] Fully depreciated property and equipment with a cost of $0.8 million and $2.6 million were retired during the years ended December 31, 2025 and 2024, respectively.
[2] Construction in progress includes equipment received but not yet placed into service pending installation.

In July 2023, we announced our plan to consolidate operations from our San Carlos facility to our headquarters in Redwood City. As part of this plan, we entered into agreements to sell certain laboratory equipment located in our San Carlos facility through an asset auction and as part of the lease assignment of the San Carlos facility to Vaxcyte (see further discussion at Note 13, “Commitments and Contingencies”). These certain items of laboratory equipment met the assets held for sale criteria and were sold during the fourth quarter of 2023. Using a fair value estimate based on Level 3 inputs in the fair value hierarchy, the Company determined that the carrying value of these assets exceeded fair value less costs to sell, which resulted in a write-down of $1.5 million, presented within the asset impairment and other charges line item in the consolidated statements of operations in the year ended December 31, 2023.

During the year ended December 31, 2023, the Company recorded a non-cash impairment charge of $4.7 million associated with the San Carlos facility leasehold improvements. For additional information, see Note 13, “Commitments and Contingencies.”

Depreciation expense included in both research and development expenses and selling, general and administrative expenses in the consolidated statements of operations was as follows (in thousands):

	Year Ended December 31,		
	2025	2024	2023
Research and development	$ 4,125	$ 3,964	$ 4,594
Selling, general and administrative	972	881	924
Total depreciation expense	$ 5,097	$ 4,845	$ 5,518

Goodwill

Goodwill was previously allocated to each of the Company's reporting units. In July 2023, we announced a restructuring of our business and that we were discontinuing investment in certain development programs, primarily in Novel Biotherapeutics. As a result of this plan, the Company determined that a triggering event had occurred that required an interim goodwill impairment test during the third quarter of 2023. The fair value estimate used in the interim goodwill impairment test was primarily based on Level 3 inputs in the fair value hierarchy. Based on the results of the impairment evaluation, the Company determined that the goodwill within the Novel Biotherapeutics reporting unit was impaired, which resulted in a non-cash impairment charge of $0.8 million to write off all the associated goodwill. The impairment charge is recorded within the asset impairment and other charges in the consolidated statements of operation in the year ended December 31, 2023. During the years ended December 31, 2025 and 2024, we had no impairment charges related to goodwill. Goodwill had a carrying value of $2.5 million as of December 31, 2025 and 2024, respectively.

Other Accrued Liabilities

Other accrued liabilities consisted of the following (in thousands):

	December 31,	
	2025	2024
Accrued professional and outside service fees	$ 1,384	$ 3,064
Accrued purchases	938	2,908
Other	446	251
Total other accrued liabilities	$ 2,768	$ 6,223

Note 9. Stock-based Compensation

Equity Incentive Plans

In 2019, our Board of Directors (the "Board") and stockholders approved the Company's 2019 Incentive Award Plan (the "2019 Plan"). The 2019 Plan superseded and replaced in its entirety our 2010 Equity Incentive Plan (the "2010 Plan") which was effective in March 2010, and no further awards will be granted under the 2010 Plan; however, the terms and conditions of the 2010 Plan will continue to govern any outstanding awards thereunder. The 2010 Plan provided for the grant of incentive stock options, non-statutory stock options, RSUs, RSAs, PSUs, PBOs, stock appreciation rights, and stock purchase rights to our employees, non-employee directors and consultants. The 2019 Plan provides for the grant of stock options, including incentive stock options and non-qualified stock options, stock appreciation rights, RSAs, RSUs, PSUs, PBOs, other stock or cash-based awards and dividend equivalents to eligible employees and consultants of the Company or any parent or subsidiary, as well as members of the Board.

The number of shares of our common stock that were initially available for issuance under the 2019 Plan is equal to the sum of (i) 7,897,144 shares, and (ii) any shares subject to awards granted under the 2010 Plan that were outstanding as of April 22, 2019 and thereafter terminate, expire, lapse or are forfeited. In June 2019, 8.1 million shares authorized for issuance under the 2019 Plan were registered under the Securities Act. In April 2023, the Board approved an amendment to the 2019 Plan (the "2019 Amended Plan") which became effective upon stockholders' approval at the 2023 Annual Meeting. The 2019 Amended Plan included the (i) increase in the number of shares available by 8,000,000 shares, such that an aggregate of 15,897,144 shares are reserved for issuance under the 2019 Amended Plan and any shares subject to awards granted under the 2010 Plan, and (ii) increase in the number of shares that may be granted as incentive stock options under the 2019 Amended Plan such that an aggregate of 22,000,000 shares of common stock may be granted as incentive stock options under the 2019 Amended Plan.

In April 2025, our Board approved the second amendment to the 2019 Plan which amendment became effective upon stockholders' approval at the Annual Meeting of the Company's stockholders in June 2025. The second amendment provided for an increase in the number of shares authorized and available for issuance under the 2019 Plan by 8,000,000 shares, resulting in an increase to the total shares authorized and available for issuance under the 2019 Plan from 15,897,144 shares to 23,897,144 shares.

In January 2023, our Board approved the 2022 Employment Inducement Award Plan (the "2022 Inducement Plan") which provides for the grant of non-qualified stock options, RSAs, RSUs, performance awards, other stock awards and dividend equivalents to eligible employees with respect to an aggregate of up to 2,000,000 shares of our common stock. In June 2023, the 2022 Inducement Plan was terminated upon the approval of an amendment to the 2019 Plan at the Annual Meeting of Stockholders in June 2023.

In August 2024, our Board approved the 2024 Employment Inducement Award Plan (the "2024 Inducement Plan") which provides for the grant of non-qualified stock options, RSAs, RSUs, and performance awards to eligible employees with respect to an aggregate of up to 1,000,000 shares of our common stock.

As of December 31, 2025, the number of total shares remaining available for issuance under the 2019 Plan and 2024 Inducement Plan was 12,329,669 shares.

Employee Stock Purchase Plan

In April 2023, our Board approved an employee stock purchase plan (as may be amended from time to time, the "ESPP") which became effective upon approval at the 2023 Annual Meeting. The ESPP allows eligible employees of the Company to purchase shares of our common stock through payroll deductions. Offering periods are generally over a 24-month period and begin in May and November of each year. The per share purchase price will be the lower of 85% of the closing trading price

per share of our common stock on the first trading date of an offering period in which a participant is enrolled or 85% of the closing trading price per share on the purchase date. Participant purchases are limited to a maximum of $25,000 of fair value of our stock per calendar year. The Company is authorized to grant up to 2,000,000 shares of common stock under the ESPP. The first offering period of the ESPP commenced in December 2023.

For the years ended December 31, 2025 and 2024, 277,577 and 263,157 shares of our common stock were purchased under the ESPP, respectively. As of December 31, 2025, 1,459,266 shares of common stock were available for future issuance under the ESPP. We recognized $0.4 million and $0.3 million of stock-based compensation expenses related to the ESPP for the years ended December 31, 2025, and 2024, respectively. As of December 31, 2025, the total unrecognized stock-based compensation expense, net of expected forfeitures, related to the ESPP was $0.6 million and is expected to be recognized over the remaining offering period.

Stock Options

Stock options granted to employees generally have a maximum term of ten years and vest over four years from the date of grant, of which 25% vest at the end of one year, and 75% vest monthly over the remaining three years. We may grant options with different vesting terms from time to time. In January 2024, the Board approved the grants of stock options with a vesting term over three years from the date of grant, of which 33% vest at the end of one year, and 67% vest monthly over the remaining two years.

Unless an employee's termination of service is due to disability or death, upon termination of service, any unexercised vested options will be forfeited at the end of three months or the expiration of the option, whichever is earlier.

Restricted Stock Units ("RSUs")

We also grant employees RSUs, which generally vest over either a three-year period with 33% of the shares subject to the RSUs vesting on each yearly anniversary of the vesting commencement date or over a four-year period with 25% of the shares subject to the RSU vesting on each yearly anniversary of the vesting commencement date, in each case contingent upon such employee's continued service on such vesting date. RSUs are generally subject to forfeiture if employment terminates prior to the release of vesting restrictions. We may grant RSUs with different vesting terms from time to time.

Performance-contingent Restricted Stock Units ("PSUs") and Performance Based Options ("PBOs")

In prior years, the compensation committee of the Board approved grants of PBOs and PSUs to our executives, and solely in respect of non-executive employees, delegated to our CEO the authority to approve grants of PSUs. The PSUs and PBOs vest based upon both the successful achievement of certain corporate operating milestones in specified timelines and continued employment through the applicable vesting date. When the performance goals are deemed to be probable of achievement for these types of awards, recognition of stock-based compensation expense commences. Once the number of shares eligible to vest is determined, those shares vest in two equal installments with 50% vesting upon achievement, as determined by the compensation committee of the Board, and the remaining 50% vesting on the first anniversary of achievement, in each case, subject to the recipient's continued service through the applicable vesting date. If the performance goals are achieved at the threshold level, the number of shares eligible to vest in respect of the PSUs and PBOs would be equal to half the number of PSUs granted and one-quarter the number of shares underlying the PBOs granted. If the performance goals are achieved at the target level, the number of shares eligible to vest in respect of the PSUs and PBOs would be equal to the number of PSUs granted and half of the shares underlying the PBOs granted. If the performance goals are achieved at the superior level, the number of shares eligible to vest in respect of the PSUs would be equal to two times the number of PSUs granted and equal to the number of PBOs granted. The number of shares issuable upon achievement of the performance goals at the levels between the threshold and target levels for the PSUs and PBOs or between the target level and superior levels for the PSUs would be determined using linear interpolation. Achievement below the threshold level would result in no shares being eligible to vest in respect of the PSUs and PBOs.

No PSUs and PBOs were granted in 2025, 2024 and 2023. In 2022, we awarded PSUs ("2022 PSUs") and PBOs ("2022 PBOs"), each of which commence vesting based upon the achievement of various weighted performance goals, including finance and corporate strategy, performance enzymes and biotherapeutics deliverables, research plans, and organizational development. In the first quarter of 2023, the compensation committee of the Board determined that the 2022 PSUs and 2022 PBOs performance goals had been achieved at 85.0% and 42.5% of the target level, respectively, and recognized stock-based compensation expenses accordingly. Accordingly, 50% of the shares underlying the 2022 PSUs and PBOs vested in the first quarter of 2023 and 50% of the shares underlying the 2022 PSUs and PBOs vested in the first quarter of 2024, in each case, subject to the recipient's continued service on each vesting date.

Stock-Based Compensation Expense

Stock-based compensation expense is included in the consolidated statements of operations as follows (in thousands):

	Year Ended December 31,		
	2025	2024	2023
Costs of product revenue	$ 159	$ 429	$ 354
Research and development	2,478	2,928	2,631
Selling, general and administrative	6,987	9,730	6,986
Total	$ 9,624	$ 13,087	$ 9,971

The following table presents total stock-based compensation expense by security type included in the consolidated statements of operations (in thousands):

	Year Ended December 31,		
	2025	2024	2023
Stock options	$ 5,924	$ 6,423	$ 3,962
RSUs and RSAs	3,333	4,717	4,447
PSUs	—	247	1,649
PBOs	—	$ 1,357	(112)
ESPP	367	343	25
Total	$ 9,624	$ 13,087	$ 9,971

During the fourth quarter of 2025, we entered into a Transition Agreement with Stephen Dilly, our former President and Chief Executive Officer. Under this agreement, the outstanding unvested options and awards of Mr. Dilly will continue to vest in accordance with their original terms based on his continued service to our Board. We also entered into Separation and Consulting Agreements with a former executive during the fourth quarter of 2025. Under this agreement, the outstanding unvested options and awards of the former executive will continue to vest through the end of his consultancy period, which concludes in November 2025. These modifications resulted in an incremental stock-based compensation expense of $0.7 million recognized in selling, general and administrative expenses during the year ended December 31, 2025.

During the fourth quarter of 2024, we entered into Separation and Consulting Agreements with Sri Ryali, our former Chief Financial Officer, and two other former executives. Under these agreements, the outstanding unvested options and awards for each of the three former executives will continue to vest through the end of their consultancy period, which concluded on February 28, 2025. This modification resulted in a reduction of stock-based compensation expense of $0.4 million recognized in selling, general and administrative expenses during the year ended December 31, 2024.

On June 29, 2024, we entered into an Advisory Services Agreement with a former executive of the Company. Pursuant to the advisory agreement, the exercise period for the former executive's vested stock options and performance-based options was also extended. This modification resulted in a stock-based compensation expense of $2.0 million recognized in selling, general and administrative expenses during the year ended December 31, 2024.

Grant Award Activities:

Stock Option Awards

We estimated the fair value of stock options using the Black-Scholes-Merton option-pricing model based on the date of grant. The following summarizes the weighted-average assumptions used to estimate the fair value of employee stock options granted:

	Year Ended December 31,		
	2025	2024	2023
Expected life (years)	4.6	5.9	5.8
Volatility	62.3 %	73.3 %	66.2 %
Risk-free interest rate	3.3 %	3.9 %	4.0 %
Expected dividend yield	0.0 %	0.0 %	0.0 %

The following summarizes the weighted-average assumptions used to estimate the fair value of 20,000, 20,000, and 50,000 shares of stock options granted to non-employees for services during the years ended December 31, 2025, 2024, and 2023, valued at $60 thousand, $44 thousand and $0.1 million, respectively:

	Year Ended December 31,		
	2025	2024	2023
Expected life (years)	5.9	5.8	5.8
Volatility	77.2 %	74.7 %	70.1 %
Risk-free interest rate	4.3 %	4.4 %	4.7 %
Expected dividend yield	0.0 %	0.0 %	0.0 %

The weighted average grant date fair value per share of non-employee stock options granted respectively in 2025, 2024 and 2023 was $3.02, $2.19 and $1.05, respectively.

The following tables summarize stock option activities:

	Number of Shares	Weighted Average Exercise Price Per Share
	(In Thousands)	
Outstanding at December 31, 2024	9,128	$ 5.17
Granted	3,344	$ 3.61
Exercised	(339)	$ 3.09
Forfeited/Expired	(3,568)	$ 5.35
Outstanding at December 31, 2025	8,565	$ 4.58

	Number of Shares	Weighted Average Exercise Price Per Share	Weighted Average Remaining Contractual Term	Aggregate Intrinsic Value
	(In Thousands)		(In Years)	(In Thousands)
Outstanding at December 31, 2025	8,565	$ 4.58	7.7	$ 1,800
Exercisable at December 31, 2025	3,815	$ 5.82	6.4	$ 900
Vested and expected to vest at December 31, 2025	8,068	$ 4.68	7.6	$ 1,662

The weighted average grant date fair value per share of employee stock options granted in 2025, 2024, and 2023 were $2.03, $2.05 and $3.31, respectively. The total intrinsic value of options exercised in 2025, 2024, and 2023 were $0.6 million, $0.6 million and $0.7 million, respectively.

As of December 31, 2025, there was $5.4 million of unrecognized stock-based compensation, net of expected forfeitures, related to unvested stock options, which we expect to recognize over a weighted average period of 2.9 years.

Restricted Stock Awards ("RSAs")

The following table summarizes RSA activities:

	Number of Shares	Weighted Average Grant Date Fair Value Per Share
	(In Thousands)	
Non-vested balance at December 31, 2024	234	$ 3.56
Granted	—	$ —
Vested	(234)	$ 3.56
Non-vested balance at December 31, 2025	—	$ —

The total fair value, as of the vesting date, of RSAs vested in fiscal years 2025, 2024 and 2023 were $0.6 million, $1.0 million and $0.4 million, respectively.

As of December 31, 2025, there were no unrecognized stock-based compensation cost related to non-vested RSAs.

Restricted Stock Units ("RSUs")

The following table summarizes RSU activities:

	Number of Shares	Weighted Average Grant Date Fair Value Per Share
	(In Thousands)	
Non-vested balance at December 31, 2024	2,010	$ 4.16
Granted	1,484	$ 3.14
Vested	(766)	$ 5.08
Forfeited/Expired	(717)	$ 3.86
Non-vested balance at December 31, 2025	2,011	$ 2.96

The total fair value, as of the vesting date, of RSUs vested in fiscal years 2025, 2024 and 2023 were $3.4 million, $1.1 million and $1.1 million respectively.

As of December 31, 2025, there was $2.9 million of unrecognized stock-based compensation cost related to non-vested RSUs, which we expect to recognize over a weighted average period of 1.0 years.

Performance-Contingent Restricted Stock Units ("PSUs")

The total fair value, as of the vesting date, of PSUs vested in the years ended December 31, 2025, 2024, and 2023 were nil, $0.9 million, and $1.6 million, respectively.

As of December 31, 2025, there was no unrecognized stock-based compensation cost related to non-vested PSUs.

Performance Based Options ("PBOs")

We estimated the fair value of PBOs using the Black-Scholes-Merton option-pricing model based on the date of grant. No PBOs were granted to employees for their services since 2022.

The following tables summarize PBOs activities:

	Number of Shares	Weighted Average Grant Date Fair Value Per Share
	(In Thousands)	
Outstanding at December 31, 2024	1,575	$ 5.43
Forfeited/Expired	(1,520)	$ 10.28
Outstanding at December 31, 2025	55	$ 20.15

	Number of Shares	Weighted Average Exercise Price Per Share	Weighted Average Remaining Contractual Term	Aggregate Intrinsic Value
	(In Thousands)		(In Years)	(In Thousands)
Exercisable at December 31, 2025	55	$ 20.15	5.53	$ —
Vested and expected to vest at December 31, 2025	55	$ 20.15	5.53	$ —

The total fair value of exercised PBOs for 2025, 2024 and 2023, was nil.

As of December 31, 2025, there was no unrecognized stock-based compensation cost related to non-vested PBOs.

Employee Stock Purchase Plan ("ESPP")

The fair value of shares to be issued under the ESPP is computed using the Black-Scholes-Merton option pricing model at the commencement of the offering period. The following summarizes the weighted-average assumptions used to estimate the fair value of ESPP:

	Year Ended December 31,		
	2025	2024	2023
Expected life (years)	1.3	1.2	0.4
Volatility	82.2 %	89.4 %	89.6 %
Risk-free interest rate	3.9 %	4.6 %	5.3 %
Expected dividend yield	0.0 %	0.0 %	0.0 %

Note 10. Capital Stock

Sales Agreements

In May 2021, we filed a Registration Statement on Form S-3 with the SEC (the "2021 Registration Statement"), that automatically became effective upon its filing, under which we were permitted to sell common stock, preferred stock, debt securities, warrants, purchase contracts, and units from time to time in one or more offerings. On February 27, 2023, we filed a post-effective amendment to the 2021 Registration Statement. Pursuant to that post-effective amendment, we registered an aggregate $200.0 million of securities. In May 2021, we entered into an Equity Distribution Agreement ("EDA") with Piper Sandler & Co ("PSC"), under which PSC, as our exclusive agent, at our discretion and at such times that we determined from time to time, may have sold over a three-year period from the execution of the EDA up to a maximum of $50.0 million of shares of our common stock. Under the terms of the EDA, PSC was permitted to sell the shares at market prices by any method that is deemed to be an "at the market offering" as defined in Rule 415 under the Securities Act.

We were not required to sell any shares at any time during the term of the EDA. On April 24, 2024, we terminated the EDA.

No shares of our common stock were issued and sold pursuant to the EDA during the year ended December 31, 2024. During the year ended December 31, 2023, 3,079,421 shares of our common stock were issued and sold pursuant to the EDA. During the year ended December 31, 2023, we received gross proceeds of $8.7 million or $7.9 million in net proceeds after PSC's commissions and direct offering expenses of $0.7 million.

On May 2, 2024, we entered into a Controlled Equity Offering℠ Sales Agreement (the "Cantor Sales Agreement") with Cantor Fitzgerald & Co., as sales agent ("Cantor"), under which Cantor, at our discretion and at such times that we may determine from time to time, may sell up to a maximum of $75.0 million of shares of our common stock. Under the terms of the Cantor Sales Agreement, Cantor may sell the shares at market prices by any method that is deemed to be an "at the market offering" as defined in Rule 415 under the Securities Act. On May 2, 2024, we filed a registration statement on Form S-3 registering the offer and sale of these shares under the Securities Act which became effective on May 14, 2024. We will pay a commission of up to 3.0% of gross sales proceeds of any common stock sold under the Cantor Sales Agreement. In 2024, 10,440,000 shares of our common stock were issued and sold pursuant to the Cantor Sales Agreement, all during the third quarter of 2024, and we received net proceeds of $29.7 million after Cantors' commissions and direct offering expenses

During the year ended December 31, 2025, 7,244,966 shares of our common stock were issued and sold pursuant to the Cantor Sales Agreement, all during the second quarter of 2025, and we received gross proceeds of $17.3 million or $16.4 million in net proceeds after Cantor's commissions and direct offering expenses of $0.8 million. As of December 31, 2025, $26.4 million remained available for sale under the Cantor Sales Agreement.

Note 11. 401(k) Plan

In January 2005, we implemented a 401(k) Plan covering certain employees. Currently, all of our United States based employees over the age of 18 are eligible to participate in the 401(k) Plan. Under the 401(k) Plan, eligible employees may elect to reduce their current compensation up to a certain annual limit and contribute these amounts to the 401(k) Plan. We may make matching or other contributions to the 401(k) Plan on behalf of eligible employees. We recorded employer matching contributions expense of $1.4 million, $1.2 million, and $1.4 million in the years ended December 31, 2025, 2024, and 2023, respectively.

Note 12. Income Taxes

Our loss before provision for income taxes were as follows (in thousands):

	Year Ended December 31,		
	2025	2024	2023
United States	$ (43,908)	$ (65,231)	$ (76,169)
Foreign	(19)	(11)	(2)
Loss before provision for income taxes	$ (43,927)	$ (65,242)	$ (76,171)

The tax provision for the years ended December 31, 2025 and 2024 consists primarily of taxes attributable to foreign operations. The tax provision for the year ended December 31, 2023 consists primarily of current year state and foreign income taxes. The components of the provision for income taxes are as follows (in thousands):

	Year Ended December 31,		
	2025	2024	2023
Current provision:			
State	$ 7	$ (6)	$ 27
Foreign	43	42	42
Total current provision	50	36	69
Deferred benefit:			
Foreign	(3)	(2)	—
Total deferred benefit	(3)	(2)	—
Provision for income taxes	$ 47	$ 34	$ 69

As further described in Note 2, “Summary of Significant Accounting Policies”, we have elected to prospectively adopt the guidance in ASU No. 2023-09. The following table is a reconciliation of the U.S. federal statutory rate of 21% to our effective rate for the year ended December 31, 2025 in accordance with the guidance in ASU No. 2023-09 (in thousands, except percentages):

	Year Ended December 31, 2025	
	$	%
Provision for income taxes at U.S. federal statutory rate	$ (9,225)	21.00 %
State and local income taxes, net of federal	—	—
Foreign tax effects	2	—
Tax credits	(1,295)	2.95
Changes in valuation allowance	7,494	(17.06)
Nontaxable or nondeductible items:		
Stock-based compensation	2,645	(6.02)
Others	242	(0.55)
Changes in unrecognized tax benefits	180	(0.41)
Other adjustments	4	(0.02)
Provision for income taxes	$ 47	(0.11)%

The following table is a reconciliation of the provision for income taxes calculated at the statutory rate to our provision for income taxes for the years ended December 31, 2024 and 2023 in accordance with the guidance prior to the adoption of ASU No. 2023-09 (in thousands):

	Year Ended December 31,	
	2024	2023
Tax benefit at federal statutory rate	$ (13,701)	$ (15,995)
State taxes	(3,133)	(2,208)
Research and development credits	(419)	(925)
Foreign operations taxed at different rates	—	—
Stock-based compensation	1,930	1,967
Other nondeductible items	(108)	438
Executive compensation	306	152
Change in valuation allowance	15,159	16,640
Provision for income taxes	$ 34	$ 69

Deferred income taxes reflect the net tax effects of (a) temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes, and (b) operating losses and tax credit carryforwards.

Significant components of our deferred tax assets and liabilities are as follows (in thousands):

	December 31,	
	2025	2024
Deferred tax assets:		
Net operating losses	$ 101,027	$ 82,925
Credits	19,682	17,660
Deferred revenues	256	48
Stock-based compensation	3,187	4,786
Reserves and accruals	2,506	2,650
Property and Equipment	131	830
Intangible assets	57	244
Capital losses	453	452
R&D Capitalization	20,637	28,471
Unrealized gain/loss	3	2
Interest carryforward	399	—
Lease liability	8,474	7,445
Other assets	4,788	4,362
Total deferred tax assets:	161,600	149,875
Valuation allowance	(153,803)	(142,994)
Deferred tax liabilities:		
Right-of-use assets	(7,808)	(6,895)
Total deferred tax liabilities:	(7,808)	(6,895)
Net deferred tax liabilities	$ (11)	$ (14)

ASC 740 requires that the tax benefit of NOLs, temporary differences and credit carryforwards be recorded as an asset to the extent that management assesses that realization is "more likely than not." Realization of the future tax benefits is dependent on our ability to generate sufficient taxable income within the carryforward period. Because of our history of operating losses, management believes that recognition of the deferred tax assets arising from the above-mentioned future tax benefits is currently not more likely than not to be realized and, accordingly, has provided a valuation allowance against our deferred tax assets. Accordingly, the net deferred tax assets in all our jurisdictions have been fully reserved by a valuation allowance. The net valuation allowance increased by $10.8 million during the year ended December 31, 2025, increased by $15.2 million during the year ended December 31, 2024, and increased by $16.7 million during the year ended December 31, 2023. At such time as it is determined that it is more likely than not that the deferred tax assets are realizable, the valuation allowance will be reduced.

The following table sets forth our federal, state and foreign NOL carryforwards and federal research and development tax credits as of December 31, 2025 (in thousands):

	December 31, 2025	
	Amount	Expiration Years
Net operating losses, federal	$ 182,918	2026-2037
Net operating losses, federal	$ 237,257	Do not expire
Net operating losses, state	$ 196,540	2028-2045
Tax credits, federal	$ 21,388	2025-2045
Tax credits, state	$ 22,978	Do not expire

Current U.S. federal and California tax laws include substantial restrictions on the utilization of NOLs and tax credit carryforwards in the event of an ownership change of a corporation. Accordingly, the Company's ability to utilize NOLs and tax credit carryforwards may be limited as a result of such ownership changes. We performed an analysis in 2025 and determined that there was not a limitation that would result in the expiration of carryforwards before they are utilized.

We apply the provisions of ASC 740 to account for uncertain income taxes. A reconciliation of the beginning and ending amount of unrecognized tax benefits is as follows (in thousands):

	December 31,		
	2025	2024	2023
Balance at beginning of year	$ 21,618	$ 20,204	$ 18,571
Additions based on tax positions related to current year	2,243	1,332	2,164
Additions to tax position of prior years	138	82	—
Reductions to tax position of prior years	(130)	—	(531)
Balance at end of year	$ 23,869	$ 21,618	$ 20,204

We recognize interest and penalties as a component of our income tax expense. Total interest and penalties recognized in the consolidated statements of operations were $42 thousand, $42 thousand and $42 thousand in 2025, 2024 and 2023, respectively. Total penalties and interest recognized in the consolidated balance sheet was $0.7 million, $0.6 million and $0.6 million as of December 31, 2025, 2024 and 2023, respectively. The total unrecognized tax benefits that, if recognized currently, would impact our company's effective tax rate were $0.3 million as of December 31, 2025, 2024 and 2023. We are not subject to examination by United States federal or state tax authorities for years prior to 2002 and foreign tax authorities for years prior to 2014. Our 2023 U.S. federal tax return is under audit by the Internal Revenue Service, and we will adjust our federal R&D credits based on the outcome of the investigation.

Note 13. Commitments and Contingencies

Operating Leases

Our headquarters are located in Redwood City, California, where we occupy approximately 77,300 square feet of office and laboratory space in multiple buildings within the same business park operated by Metropolitan Life Insurance Company ("MetLife"). Our lease agreement with MetLife ("RWC Lease") includes approximately 28,200 square feet of space located at 200 and 220 Penobscot Drive, Redwood City, California (the "200/220 Penobscot Space") and approximately 37,900 square feet of space located at 400 Penobscot Drive, Redwood City, California (the "400 Penobscot Space") (the 200/220 Penobscot Space and the 400 Penobscot Space are collectively referred to as the "Penobscot Space"), and approximately 11,200 square feet of space located at 501 Chesapeake Drive, Redwood City, California (the "Chesapeake Space").

We entered into the initial lease with MetLife for our facilities in Redwood City in 2003 (the "RWC Lease") and the RWC Lease has been amended multiple times since then to adjust the leased space and terms of the RWC Lease. In December 2024, we entered into a Ninth Amendment to the RWC Lease (the "Ninth Amendment") with MetLife with respect to the Penobscot Space and the Chesapeake Space to extend the term of the Lease for additional periods. Pursuant to the Ninth Amendment, the term of the lease for both the Penobscot Space and the Chesapeake Space has been extended through August 2032. We have one (1) option to extend the term of the lease for the Penobscot Space for five (5) years, and one (1) separate option to extend the term of the lease for the Chesapeake Space for five (5) years. The Ninth Amendment provided a net tenant improvement allowance of $3.0 million.

Pursuant to the terms of the RWC Lease, we exercised our right to deliver a letter of credit in lieu of a security deposit. The letter of credit is collateralized by deposit balances held by the bank in the amount of $1.1 million as of December 31, 2025 and 2024, and are recorded as non-current restricted cash on the consolidated balance sheets

In November 2025, we entered into a lease agreement with 30831 Huntwood Avenue LLC ("Huntwood") for approximately 34,304 square feet of office, laboratory, research and development, and manufacturing space located in Hayward, California (the "Huntwood Space"). The lease has an initial term of six years from the lease commencement date, with two options to extend the term for additional five-year period each. The initial base monthly rent is approximately $0.1 million, subject to a 3% annual escalation on each anniversary of the operating expense commencement date. Upon execution of the lease, we have provided Huntwood with a security deposit of $0.6 million in the form of a letter of credit, which is recorded as non-current restricted cash on the consolidated balance sheets. We expect to commence occupancy at Huntwood Space in the first quarter of 2027, following the substantial completion of tenant improvements in accordance with the construction plan.

The tables below show the balance of right-of-use assets and lease obligations as of January 1, 2025 and the balance as of December 31, 2025, including the changes during the period (in thousands):

	Right-of-use Assets - Operating Lease, net
Right-of-use assets - Operating leases, net, at January 1, 2025	$ 28,700
Amortization of right-of-use assets	(3,044)
Addition due to new lease	4,845
Right-of-use assets - Operating leases, net, at December 31, 2025	$ 30,501

	Lease Obligations - Operating Leases
Lease obligations - Operating leases, net, at January 1, 2025	$ 30,990
Lease payments	(4,868)
Interest accretion	2,095
Addition due to new lease	4,886
Lease obligations - Operating leases, net, at December 31, 2025	$ 33,103

In July 2023, we announced our plan to consolidate operations from our previous San Carlos facility to our headquarters in Redwood City. On September 1, 2023, the Company entered into an Assignment and Assumption of Lease (the "Assignment Agreement") with Vaxcyte, Inc. ("Vaxcyte") to assign to Vaxcyte all of the Company's right, title and interest in, under and to the San Carlos facility and the related Lease Agreement, dated as of January 29, 2021. On September 6, 2023, the Company, Vaxcyte and ARE-San Francisco No. 63, LLC ("ARE") entered into a Consent to Assignment and First Amendment pursuant to which ARE consented to the Assignment Agreement and the assignment by the Company and the assumption by Vaxcyte of the Company's interest as tenant in the lease. The effective date of the assignment was October 1, 2023.

As a result of the Assignment Agreement, the Company remeasured the lease obligation for the San Carlos facility to its present value of $3.1 million and wrote off the remaining lease liability of $19.6 million and the corresponding right of use asset balance. Simultaneously, the Company determined that indicators of impairment existed because the lease assignment impacts the utilization of the related right of use assets and leasehold improvements in the San Carlos facility, and therefore performed a recoverability test by estimating future undiscounted net cash flows expected to be generated from the use of these assets. As there were no substantial future cash inflows associated with these assets, the carrying values of these assets were deemed unrecoverable. As a result, during the third quarter of 2023, the Company recognized a non-cash impairment charge of $7.7 million, of which $4.7 million was related to leasehold improvements and $3.0 million for the right of use assets, presented within the asset impairment and other charges line item in the consolidated statements of operations in the year ended December 31, 2023.

As part of the plan, the Company entered into agreements to sell certain laboratory equipment previously located in the San Carlos facility through an asset auction and as part of the lease assignment of the San Carlos facility to Vaxcyte. These certain items of laboratory equipment met the assets held for sale criteria and were sold during the fourth quarter of 2023. Using a fair value estimate based on Level 3 inputs in the fair value hierarchy, the Company determined that the carrying value of these assets exceeds fair value less costs to sell, which resulted in a write-down of $1.5 million, presented within the asset impairment and other charges line item in the consolidated statements of operations in the year ended December 31, 2023.

We are required to restore certain areas of the Redwood City facility that we are renting to its original form. We are expensing the asset retirement obligation over the term of the Redwood City lease. We review the estimated obligation each reporting period and make adjustments if our estimates change. We recorded asset retirement obligations of $0.3 million as of December 31, 2025 and 2024, which are included in other liabilities on the consolidated balance sheets. Accretion expense related to our asset retirement obligations was nominal in the years ended December 31, 2025 and 2024.

Lease and other information

Lease cost amounts included in measurement of lease obligations and other information related to non-cancellable operating leases and finance leases were as follows (in thousands):

	Year Ended December 31,		
	2025	**2024**	**2023**
Operating lease cost[1]	$ 5,139	$ 4,130	$ 6,310

[1] The Company had no variable lease costs.

Amounts included in the measurement of lease obligations (in thousands):

	Year Ended December 31,		
	2025	**2024**	**2023**
Cash paid:			
Operating cash flows from operating leases	$ 4,868	$ 4,727	$ 9,897

	Operating Lease
Other information:	
Weighted-average remaining lease term (in years)	6.7
Weighted-average discount rate	6.9 %

As of December 31, 2025, our maturity analysis of annual undiscounted cash flows of the non-cancellable operating leases are as follows (in thousands):

Years ending December 31,	Operating Leases
2026	$ 5,110
2027	5,222
2028	6,604
2029	6,605
2030	7,020
Thereafter	11,156
Total minimum lease payments	41,717
Less: imputed interest	8,614
Lease obligations	$ 33,103

Reconciliation of operating lease liabilities as shown within the consolidated balance sheets (in thousands):	
Current portion of lease obligations - Operating leases	$ 2,944
Long-term lease obligations - Operating leases	30,159
Total operating lease liabilities	$ 33,103

Legal Proceedings

We may be involved in legal actions in the ordinary course of business, including inquiries and proceedings concerning business practices and intellectual property infringement, employee relations and other claims. We will recognize a loss contingency in the consolidated financial statements when it is probable a liability has been incurred and the amount of the loss can be reasonably estimated. We will disclose any loss contingencies that do not meet both conditions if there is a reasonable possibility that a material loss may have been incurred. Gain contingencies are not recorded until they are realized.

We are currently not a party to any material pending litigation or other material legal proceedings that management believes could have a material adverse effect on our financial statements.

Indemnifications

We are required to recognize a liability for the fair value of any obligations we assume upon the issuance of a guarantee. We have certain agreements with licensors, licensees and collaborators that contain indemnification provisions. In such provisions, we typically agree to indemnify the licensor, licensee and collaborator against certain types of third-party claims. The maximum amount of the indemnifications is not limited. We accrue for known indemnification issues when a loss is probable and can be reasonably estimated. There were no accruals for expenses related to indemnification issues for any periods presented.

Note 14. Debt

Innovatus Loan Agreement

On February 13, 2024 (the "Closing Date"), we entered into a five-year term loan and security agreement (the "Loan Agreement") with Innovatus Life Sciences Lending Fund I, LP ("Innovatus"), an affiliate of Innovatus Capital Partners, LLC, for an aggregate principal amount of up to $40.0 million funded in two tranches with a maturity date of February 13, 2029 (the "Innovatus Loan"). The first tranche of $30.0 million was funded on February 13, 2024 and the second tranche of $10.0 million was funded on June 27, 2025 upon achievement of certain milestones including certain pre-specified revenue thresholds. Both tranches were subject to a payment of a facility fee equal to 1.00% of the amount of such term loan.

The floating per annum interest rate of the Innovatus Loan is equal to the sum of (a) the greater of (i) prime rate published in the Money Rates section of the Wall Street Journal and (ii) 7.50%, plus (b) 3.25%; provided that, at the election of the Company, up to 2.0% of such rate shall be payable in-kind until the third anniversary of the closing date. The Company is required to make monthly interest-only payments through February 1, 2027, with the ability to extend the interest-only period through February 1, 2028, upon the achievement of certain pre-specified financial milestones. Following the interest-only period, the Company is required to make monthly amortizing payments, with the remaining balance of the principal plus accrued and unpaid interest due at maturity. For the first three years of the term, 2.0% of the interest is payable in-kind by increasing the principal balance. Prepayments of the loan, in whole or in part, will be subject to an early prepayment fee which ranges between 3.0% and 1.0% and declines each year until the third anniversary date of the Closing Date, after which no prepayment fee is required. The Company is also required to pay an exit fee upon any payment or prepayment equal to 3.0% of the aggregate principal amount of the tranches funded under the Innovatus Loan.

The Innovatus Loan contains customary representations and warranties and covenants, subject to customary carve outs, and includes financial covenants related to liquidity and net product revenue, with the latter beginning with the period ended September 30, 2024. The Innovatus Loan is secured by perfected first priority liens on the Company's assets, and the Loan Agreement includes a negative pledge by the Company which prohibits the Company from permitting liens to be placed upon the Company's intellectual property in favor of any party other than Innovatus.

In connection with funding of the first tranche of the Innovatus Loan in February 2024, we recorded a debt discount of $1.3 million and capitalized debt issuance costs of $0.6 million during the first quarter of 2024. Additionally, in connection with the funding of the second tranche of the Innovatus Loan in June 2025, we recorded a debt discount of $0.1 million during the second quarter of 2025. The discount and issuance costs will be amortized over the life of the Innovatus Loan. Interest expense for the Innovatus Loan for the years ended December 31, 2025 and 2024 were $4.5 million and $3.5 million, respectively, and are inclusive of non-cash amortization of the debt discount, debt issuance costs, payable in-kind interest, and accretion of final payment. The carrying amount of the Innovatus Loan approximates fair value and the interest rate is based on the current prime rate. The effective interest rate for the Innovatus Loan was 12.7% as of December 31, 2025.

Additionally, in connection with entering into the Innovatus Loan, we entered into a Warrant Agreement with Innovatus on February 13, 2024, and issued to Innovatus a warrant to purchase an aggregate of 424,028 shares of the Company’s common stock at an exercise price of $2.83 per share. The warrants may be exercised on a cashless basis and are immediately exercisable through the 10th anniversary of the issuance date. At the time of issuance, the Company determined the estimated fair value of the warrants of $0.9 million using the Black-Scholes model. As the warrants represent a freestanding equity instrument, the Company recorded the fair value of the warrants in additional paid-in capital during the first quarter of 2024.

The Company accounts for the amortization of the debt discount and issuance costs utilizing the effective interest method. Long-term debt consisted of the following at December 31, 2025 (in thousands):

	December 31, 2025
Face value of debt	$ 40,000
Add: payment in-kind interest	1,185
Add: amortized exit fee	334
Less: unamortized debt discount	(983)
Less: unamortized debt issuance costs	(431)
Total long-term debt	$ 40,105

The future principal payments under the Innovatus Loan are as follows (in thousands):

Years Ending December 31,	
2026	$ —
2027	17,566
2028	21,080
2029	3,513
Total principal payments	42,159
Add: amortized exit fee	334
Less: uncapitalized payment in-kind interest	(974)
Less: unamortized debt discount	(983)
Less: unamortized debt issuance costs	(431)
Total long-term debt	$ 40,105

Note 15. Segment, Geographical and Other Revenue Information

Segment Information

We previously managed our business as two business segments, Performance Enzymes and Novel Biotherapeutics. During the fourth quarter of 2023, we made changes to the structure of our organization in connection with the restructuring of our business that we announced in July 2023, including the discontinuation of investment in certain development programs, primarily in our biotherapeutics business, consolidation of operations to our Redwood City, California headquarters, and headcount reduction. In connection with these organizational structure changes, corresponding changes were made to how our business is managed, how results are reported internally and how our CEO, our chief operating decision maker ("CODM"), assesses performance and allocates resources. As a result of these changes, our previous Performance Enzymes and Novel Biotherapeutics operating segments were combined into a single reportable segment. We believe that these changes better align internal resources and external go-to-market activities in order to create a more efficient and effective organizational structure. Under this new organizational and reporting structure, we managed our business as one reportable segment since the fourth quarter of 2023.

Effective October 1, 2023, the Company's operations are managed and reported to the CODM on a consolidated basis. The CODM uses primarily consolidated income (loss) from operations and net income (loss) to assess financial performance and make resource allocation decisions. These financial measures are used by the CODM to balance short-term financial results with long-term strategic goals, guiding the allocation of budget between product costs, research and development, and general, selling and administrative expenses.

Significant Customers

Customers that each accounted for 10% or more of our total revenues were as follows:

	Percentage of Total Revenues For the Year Ended December 31,		
	2025	2024	2023
Customer A	*	18 %	22 %
Customer B	51 %	13 %	*
Customer C	*	10 %	*
Customer D	*	10 %	*
Customer E	*	*	13 %

** Percentage was less than 10%*

Customers that each accounted for 10% or more of accounts receivable balances as of the periods presented are as follows:

	As of December 31,	
	2025	2024
Customer B	*	16 %
Customer D	40 %	18 %
Customer F	13 %	12 %
Customer G	*	10 %
Customer H	*	*
Customer I	*	*
Customer J	14 %	*

** Percentage was less than 10%*

Geographical Information

Geographic revenues are identified by the location of the customer and consist of the following (in thousands):

	Year Ended December 31,		
	2025	2024	2023
Revenues			
Americas[1]	$ 43,537	$ 21,278	$ 13,733
EMEA[2][3]	9,292	10,359	22,907
APAC[4][5][6]	17,558	27,708	33,503
Total revenues	$ 70,387	$ 59,345	$ 70,143

[1] United States revenue was $43.5 million, $21.3 million, and $13.7 million, for the years ended December 31, 2025, 2024, and 2023, respectively
[2] Ireland revenue was $0.7 million, $1.8 million, and $0.5 million, for the years ended December 31, 2025, 2024, and 2023, respectively
[3] Switzerland revenue was $4.2 million, $3.4 million, and $11.1 million, for the years ended December 31, 2025, 2024, and 2023, respectively
[4] China revenue was $9.3 million, $9.8 million, and $20.3 million, for the years ended December 31, 2025, 2024, and 2023, respectively
[5] India revenue was $5.7 million, $7.3 million, and $5.7 million, for the years ended December 31, 2025, 2024, and 2023, respectively
[6] Singapore revenue was $0.4 million, $6.2 million, and $2.4 million, for the years ended December 31, 2025, 2024, and 2023, respectively

Identifiable long-lived assets by location was as follows (in thousands):

	December 31,	
	2025	2024
United States	$ 43,575	$ 43,098

Note 16. Restructuring Charges

In November 2025, in alignment with our enhanced strategic focus, we announced a plan for a workforce reduction of approximately 24%. This measure was implemented in support of the Company's organizational streamlining to focus on our ECO Synthesis platform. During the year ended December 31, 2025, we recorded a restructuring charge of $3.4 million related to severance and related benefit costs in connection with the workforce reduction. As of December 31, 2025, we have accrued $1.6 million as a current liability within accrued compensation on our consolidated balance sheets, which is expected to be paid in the first quarter of 2026.

In July 2023, in alignment with our enhanced strategic focus, we announced a restructuring of our business, including a plan for a workforce reduction of approximately 25%. During the year ended December 31, 2023, we recorded a restructuring charge related to this workforce reduction of $3.1 million related to severance and related benefit costs. The plan was substantially completed in September 2023 and severance costs were paid through the fourth quarter of 2023.

We do not expect to record any significant future charges related to the restructuring plans initiated in 2025 and 2023.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

Our management, under the supervision of our Chief Executive Officer and Chief Financial Officer and with the participation of our disclosure committee, evaluated the effectiveness of the design and operation of our disclosure controls and procedures as of December 31, 2025. The term "disclosure controls and procedures," as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, means controls and other procedures of a company that are designed to ensure that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure. Based on this evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective as of December 31, 2025 at the reasonable assurance level.

Management's Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rules 13a-15(f) and 15d-15(f). Internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external reporting purposes in accordance with United States generally accepted accounting principles.

Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting as of December 31, 2025 based on the guidelines established in *Internal Control-Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO"). Based on the results of our evaluation, our management concluded that our internal control over financial reporting was effective as of December 31, 2025. We reviewed the results of management's assessment with our Audit Committee.

Inherent Limitations on Effectiveness of Controls

In designing and evaluating the disclosure controls and procedures, management recognizes that any controls and procedures, even if determined effective and no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives to prevent or detect misstatements. In addition, the design of disclosure controls and procedures must reflect the fact that there are resource constraints and that management is required to apply judgment in evaluating the benefits of possible controls and procedures relative to their costs. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting (as defined in Rule 13a-15(f) of the Exchange Act) identified in connection with the evaluation required by paragraph (d) of Rule 13a-15 or 15d-15 of the Exchange Act, which occurred during the fourth fiscal quarter of the year ended December 31, 2025, which has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

ITEM 9B. OTHER INFORMATION

Rule 10b5-1 Trading Arrangements

On September 15, 2025, Stefan Lutz, Ph.D., who previously served as our Senior Vice President, Research and who became our Chief Technology Officer effective November 2025, adopted a trading plan intended to satisfy the affirmative defense conditions of Rule 10b5-1(c). The plan provides for the potential sale of up to 39,750 shares of the Company's common stock and will terminate on October 16, 2026, subject to early termination for certain specified events set forth in the plan. Dr. Lutz became an officer of the Company (as defined in Rule 16a-1(f) of the Securities Exchange Act of 1934, as amended) during the three months ended December 31, 2025.

During the three months ended December 31, 2025, none of the directors or officers (as defined in Rule 16a-1(f) of the Securities Exchange Act of 1934, as amended) of the Company adopted or terminated any contracts, instructions, or written plans for the purchase or sale of our securities that were intended to meet the affirmative defense conditions of Rule 10b5-1(c) or any other "non-Rule 10b5-1 trading arrangement."

ITEM 9C. DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS

Not applicable.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

We have adopted a code of ethics applicable to our principal executive, financial and accounting officers and all persons performing similar functions. A copy of our code of ethics is available on our principal corporate website at www.codexis.com in the Investors section under "Corporate Governance."

We intend to satisfy the disclosure requirement under Item 5.05 of Form 8-K regarding an amendment to, or waiver from, a provision of our code of ethics by posting such information on our website, at the address and location specified above and, to the extent required by the listing standards of the Nasdaq Global Select Market, by filing a Current Report on Form 8-K with the SEC, disclosing such information.

We have adopted insider trading policies and procedures governing the purchase, sale, and other dispositions of our securities by directors, officers and employees that are designed to promote compliance with insider trading laws, rules and regulations and applicable Nasdaq listing standards, as well as procedures designed to further the foregoing purposes. A copy of our insider trading policy was filed as Exhibit 19.1 to our Annual Report on Form 10-K for the year ended December 31, 2024, which is incorporated herein by reference.

The information required by this item is incorporated by reference from the information that will be set forth in the 2026 Proxy Statement.

ITEM 11. EXECUTIVE COMPENSATION

The information required by this item is incorporated by reference from the information that will be set forth in the 2026 Proxy Statement.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The information required by this item is incorporated by reference from the information that will be set forth in the 2026 Proxy Statement.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS,

AND DIRECTOR INDEPENDENCE

The information required by this item is incorporated by reference from the information that will be set forth in the 2026 Proxy Statement.

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

The information required by this item is incorporated by reference from the information that will be set forth in the 2026 Proxy Statement.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

1. Financial Statements: See “Index to Consolidated Financial Statements” in Part II, Item 8 of this Annual Report on Form 10-K

2. Exhibits: The exhibits listed in the accompanying index to exhibits are filed or incorporated by reference as part of this Annual Report on Form 10-K.

EXHIBIT INDEX

Exhibit No.	Description
3.1	Amended and Restated Certificate of Incorporation of Codexis, Inc. filed with the Secretary of the State of the State of Delaware on April 27, 2010 and effective as of April 27, 2010 (incorporated by reference to Exhibit 3.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2010, filed on May 28, 2010).
3.2	Certificate of Designations of Series A Junior Participating Preferred Stock of Codexis, Inc., filed with the Secretary of State of the State of Delaware on September 4, 2012 (incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K, filed on September 4, 2012).
3.3	Certificate of Amendment to the Amended and Restated Certificate of Incorporation of Codexis, Inc., filed with the Secretary of the State of the State of Delaware on June 14, 2023 (incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K, filed on June 16, 2023).
3.4	Second Amended and Restated Bylaws of Codexis, Inc. effective as of November 7, 2024 (incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K, filed on November 12, 2024).
4.1	Reference is made to Exhibits 3.1 through 3.4.
4.2	Form of the Company's Common Stock Certificate (incorporated by reference to Exhibit 4.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2012, filed on August 9, 2012).
4.3	Form of Warrant to Purchase Common Stock for Codexis, Inc., issued pursuant to the Loan and Security Agreement by and between the Company and Innovatus Life Sciences Fund I, LP. (incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K, filed on February 13, 2024).
4.4	Description of Codexis' Securities Registered Pursuant to Section 12 of the Securities Exchange Act of 1934 (incorporated by reference to Exhibit 4.4 to the Company's Annual Report on Form 10-K for the year ended December 31, 2023, filed on February 28, 2024).
10.1A*	Lease Agreement by and between the Company and Metropolitan Life Insurance Company commencing as of February 1, 2004.
10.1B*	Amendment to Lease Agreement by and between the Company and Metropolitan Life Insurance Company dated as of June 1, 2004.
10.1C*	Amendment to Lease Agreement by and between the Company and Metropolitan Life Insurance Company dated as of March 9, 2007.
10.1D*	Amendment to Lease Agreement by and between the Company and Metropolitan Life Insurance Company dated as of March 31, 2008.
10.1E	Fourth Amendment to Lease Agreement by and between the Company and Metropolitan Life Insurance Company dated as of September 17, 2010 (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2010, filed on November 4, 2010).
10.1F	Fifth Amendment to Lease Agreement by and between the Company and Metropolitan Life Insurance Company dated as of March 16, 2011 (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2011, filed on May 6, 2011).
10.1G	Sixth Amendment to Lease by and between the Company and Metropolitan Life Insurance Company dated as of September 27, 2012 (incorporated by reference to Exhibit 10.6 to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2012, filed on November 7, 2012).

Exhibit No.	Description
10.1H	Seventh Amendment to Lease by and between the Company and Metropolitan Life Insurance Company dated as of October 11, 2016 (incorporated by reference to Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2016, filed on November 8, 2016).
10.1I	Eighth Amendment to Lease, dated as of February 8, 2019, by and between the Company and Metropolitan Life Insurance Company (incorporated by reference to Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2019, filed on May 8, 2019).
10.1J***	Ninth Amendment to Lease, dated as of December 4, 2024, by and between the Company and Metropolitan Life Insurance Company (incorporated by reference to Exhibit 10.1J to the Company's Annual Report Form 10-K for the year ended December 31, 2024, filed on February 27, 2025)
10.2A+	Codexis, Inc. 2019 Incentive Award Plan (incorporated by reference to Exhibit 99.1 to the Company's Registration Statement on Form S-8 (File No. 333-232262) filed with the SEC on June 21, 2019).
10.2B+	Form of Restricted Stock Unit Award Grant Notice and Restricted Stock Unit Award Agreement under 2019 Incentive Award Plan (incorporated by reference to Exhibit 99.2 to the Company's Registration Statement on Form S-8 (File No. 333-232262) filed with the SEC on June 21, 2019).
10.2C+	Form of Stock Option Grant Notice and Stock Option Agreement under 2019 Incentive Award Plan (incorporated by reference to Exhibit 99.3 to the Company's Registration Statement on Form S-8 (File No. 333-232262) filed with the SEC on June 21, 2019).
10.2D+	Form of Stock Option Grant Notice and Stock Option Agreement under 2019 Incentive Award Plan (incorporated by reference to Exhibit 99.4 to the Company's Registration Statement on Form S-8 (File No. 333-232262) filed with the SEC on June 21, 2019).
10.2E+	Form of Performance Stock Unit Award Grant Notice and Performance Stock Unit Award Agreement under 2019 Incentive Award Plan (incorporated by reference to Exhibit 99.5 to the Company's Registration Statement on Form S-8 (File No. 333-232262) filed with the SEC on June 21, 2019).
10.2F+	Form of Restricted Stock Award Grant Notice and Restricted Stock Award Agreement under 2019 Incentive Award Plan (incorporated by reference to Exhibit 99.6 to the Company's Registration Statement on Form S-8 (File No. 333-232262) filed with the SEC on June 21, 2019).
10.2G+	Amendment to the Codexis, Inc. 2019 Incentive Award Plan (incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K, filed on June 16, 2023).
10.2H+	Second Amendment to the Codexis, Inc. 2019 Incentive Award Plan, as amended (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2025, filed on August 13, 2025).
10.3A+	Codexis, Inc. 2022 Employment Inducement Award Plan (incorporated by reference to Exhibit 99.1 to the Company's Registration Statement on Form S-8 (File No. 333-269163) filed with the SEC on January 9, 2023).
10.3B+	Form of Stock Option Grant Notice and Stock Option Agreement under the 2022 Employment Inducement Award Plan (incorporated by reference to Exhibit 99.2 to the Company's Registration Statement on Form S-8 (File No. 333-269163) filed with the SEC on January 9, 2023).
10.3C+	Form of Restricted Stock Unit Award Grant Notice and Restricted Stock Unit Award Agreement under the 2022 Employment Inducement Award Plan (incorporated by reference to Exhibit 99.3 to the Company's Registration Statement on Form S-8 (File No. 333-269163) filed with the SEC on January 9, 2023).

Exhibit No.	Description
10.4A+	Codexis, Inc. 2023 Employee Stock Purchase Plan (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K, filed on June 16, 2023).
10.4B	Amendment to the Codexis, Inc. 2023 Employee Stock Purchase Plan. (incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2024, filed on October 31, 2024).
10.5	Form of Indemnification Agreement between the Company and each of its directors, officers and certain employees (incorporated by reference to Exhibit 10.4 to the Company's Annual Report on Form 10-K for the year ended December 31, 2022, filed on February 27, 2023).
10.6+	Form of Amended and Restated Change in Control Severance Agreement between the Company and certain of its officers (incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2019, filed on November 6, 2019).
10.7A	Acquisition Agreement by and among the Company, Societé des Produits Nestlé S.A., formerly known as Nestec Ltd. ("Nestlé Health Science"), effective as of December 26, 2023. (incorporated by reference to Exhibit 10.11 to the Company's Annual Report on Form 10-K for the year ended December 31, 2023, filed on February 28, 2024).
10.7B	Amendment No. 1 to the Acquisition Agreement by and between the Company and Nestlé Health Science, effective as of February 28, 2025 (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2025, filed on May 14, 2025).
10.8A+	Employment Agreement by and between the Company and Stephen Dilly dated as of August 9, 2022 (incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2022, filed on November 4, 2022).
10.8B+	Transition Agreement by and between the Company and Stephen Dilly dated November 5, 2025.
10.9A+	Offer Letter by and between the Company and Kevin Norrett dated as of September 12, 2022 (incorporated by reference to Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2022, filed on November 4, 2022).
10.9B+	Change in Control Severance Agreement by and between the Company and Kevin Norrett dated September 12, 2022 (incorporated by reference to Exhibit 10.4 to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2022, filed on November 4, 2022).
10.9C+	Separation and Consulting Agreement by and between the Company and Kevin Norrett dated November 6, 2025.
10.10A	Loan and Security Agreement by and between the Company and Innovatus Life Sciences Fund I, LP., effective as of February 13, 2024 (incorporated by reference to Exhibit 10.17 to the Company's Annual Report on Form 10-K for the year ended December 31, 2023, filed on February 28, 2024).
10.10B	First Amendment to the Loan and Security Agreement, dated May 1, 2024, by and between the Company and Innovatus Life Sciences Fund I, LP. (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2024, filed on August 8, 2024).
10.10C	Second Amendment to the Loan and Security Agreement, dated December 20, 2024, by and between the Company and Innovatus Life Sciences Fund I, LP. (incorporated by reference to Exhibit 10.16C to the Company's Annual Report on Form 10-K for the year ended December 31, 2024 filed on February 27, 2025).
10.10D	Third Amendment to the Loan and Security Agreement dated September 30, 2025, by and between the Company and Innovatus Life Sciences Fund I, LP. (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2025, filed on November 6, 2025).

Exhibit No.	Description
10.11+	Codexis, Inc. 2024 Inducement Plan (incorporated by reference to Exhibit 4.1 to the Company's Registration Statement on Form S-8 (File No. 333-281429) filed with the SEC on August 9, 2024).
10.12A+	Offer Letter by and between the Company and Georgia Erbez, dated as of September 30, 2024. (incorporated by reference to Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2024, filed on October 31, 2024).
10.13A+	Offer Letter by and between the Company and Alison Moore, dated as of September 30, 2024. (incorporated by reference to Exhibit 10.5 to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2024, filed on October 31, 2024).
10.13B+	Offer Letter by and between the Company and Alison Moore, dated as of November 5, 2025.
10.14+	Offer Letter by and between the Company and Stefan Lutz, dated as of November 5, 2025.
19.1	Codexis Insider Trading Policy effective as of May 9, 2024 incorporated by reference to Exhibit 19.1 to the Company's Annual Report on Form 10-K for the year ended December 31, 2024 filed on February 27, 2025).
23.1	Consent of KPMG LLP, independent registered public accounting firm.
23.2	Consent of BDO USA, P.C., independent registered public accounting firm.
24.1	Power of Attorney (see signature page to this Annual Report on Form 10-K).
31.1	Certification of Principal Executive Officer Required Under Rule 13a-14(a) and 15d-14(a) of the Securities Exchange Act of 1934, as amended.
31.2	Certification of Principal Financial Officer Required Under Rule 13a-14(a) and 15d-14(a) of the Securities Exchange Act of 1934, as amended.
32.1**	Certification of Principal Executive Officer and Principal Financial Officer Required Under Rule 13a-14(b) of the Securities Exchange Act of 1934, as amended, and 18 U.S.C. §1350.
97.1	Codexis, Inc. Clawback Policy effective as of August 24, 2023.
101	The following materials from Registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 2025 formatted in Inline Extensible Business Reporting Language (iXBRL) includes: (i) Consolidated Balance Sheets at December 31, 2025 and December 31, 2024, (ii) Consolidated Statements of Operations for the years ended December 31, 2025, December 31, 2024 and December 31, 2023, (iii) Consolidated Statements of Cash Flows for the years ended December 31, 2025, December 31, 2024 and December 31, 2023, (iv) Consolidated Statements of Stockholders' Equity for the years ended December 31, 2025, December 31, 2024 and December 31, 2023, and (v) Notes to Consolidated Financial Statements.
101.SCH	Inline XBRL Taxonomy Extension Schema Document
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document

Exhibit No.	Description
104	The cover page from the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2025, formatted in Inline XBRL and contained in Exhibit 101.

+ Indicates a management contract or compensatory plan or arrangement.

* Filed as exhibits to the registrant's Registration Statement on Form S-1 (File No. 333-164044), effective April 21, 2010, and incorporated herein by reference.

** Pursuant to Item 601(b)(32) of Regulation S-K this exhibit is furnished rather than filed with this report.

*** Portions of the of the exhibit, marked by brackets, have been omitted because the omitted information is (i) not material and (ii) customarily and actually treated as private or confidential.

ITEM 16. FORM 10-K SUMMARY

Not applicable.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

CODEXIS, INC.

Date: March 11, 2026

By: /s/ Alison Moore

President and Chief Executive Officer
(Principal Executive Officer)

POWER OF ATTORNEY

Each person whose individual signature appears below hereby authorizes and appoints Alison Moore and Georgia Erbez, and each of them, with full power of substitution and resubstitution and full power to act without the other, as his or her true and lawful attorney-in-fact and agent to act in his or her name, place and stead and to execute in the name and on behalf of each person, individually and in each capacity stated below, and to file any and all amendments to this annual report on Form 10-K and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing, ratifying and confirming all that said attorneys-in-fact and agents or any of them or their or his substitute or substitutes may lawfully do or cause to be done by virtue thereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

SIGNATURE	TITLE		DATE
/s/ Alison Moore Alison Moore	President and Chief Executive Officer (Principal Executive Officer) and Director	Date:	March 11, 2026
/s/ Georgia Erbez Georgia Erbez	Chief Financial Officer and Chief Business Officer (Principal Financial and Accounting Officer)	Date:	March 11, 2026
/s/ Stephen Dilly Stephen Dilly	Executive Chair	Date:	March 11, 2026
/s/ Raymond De Vré Raymond De Vré	Director	Date:	March 11, 2026
/s/ Cynthia Collins Cynthia Collins	Director	Date:	March 11, 2026
/s/ Esther Martinborough Esther Martinborough	Director	Date:	March 11, 2026
/s/ H. Stewart Parker H. Stewart Parker	Director	Date:	March 11, 2026
/s/ Christos Richards Christos Richards	Director	Date:	March 11, 2026
/s/ Rahul Singhvi Rahul Singhvi	Director	Date:	March 11, 2026
/s/ David V. Smith David V. Smith	Director	Date:	March 11, 2026
/s/ Dennis P. Wolf Dennis P. Wolf	Director	Date:	March 11, 2026

CODEXIS, INC. CORPORATE INFORMATION

BOARD OF DIRECTORS

Stephen G. Dilly, M.B.B.S., Ph.D.
Executive Chair of the Board and Chief Executive Officer of Sonoma Biotherapeutics, Inc.

Alison Moore, Ph.D.
President, Chief Executive Officer and Director

David V. Smith
Lead Independent Director; Former Executive Vice President and Chief Financial Officer of Five Prime Therapeutics, Inc.

Rahul Singhvi, Sc.D.
Founder and Chief Executive Officer of Axella Biosciences, Inc.

Christos Richards
Partner and Global Head of Healthcare and Life Sciences at Calibre One, Inc.

H. Stewart Parker
Principal at Parker BioConsulting

Esther Martinborough, Ph.D.
Former Chief Scientific Officer of Escient Pharmaceuticals

Raymond De Vré, Ph.D.
Founder and Managing Director of RADV Advisory

Cynthia Collins
Former Chief Executive Officer of Editas Medicine, Inc.

EXECUTIVE OFFICERS

Alison Moore, Ph.D.
President, Chief Executive Officer and Director

Georgia Erbez
Chief Financial Officer and Chief Business Officer

Stefan Lutz, Ph.D.
Chief Scientific Officer

STOCKHOLDER ACCOUNT ASSISTANCE

Registered stockholder records are maintained by our transfer agent:

Equiniti Trust Company, LLC
Attn: Shareholder Services
P.O. Box 500
Newark, NJ 07101
Toll-free telephone number is open Monday - Friday 8 a.m. to 8 p.m. ET
U.S. only: (800) 937-5449
International: (718) 921-8124
Website: equiniti.com/us
E-mail: HelpAST@equiniti.com

FINANCIAL INFORMATION

Copies of Codexis, Inc.'s periodic reports and proxy statements are available on the Company's website.

ANNUAL MEETING OF STOCKHOLDERS

The annual meeting of stockholders of Codexis, Inc. will be held on June 17, 2026 at 9:00 a.m. Pacific Time, via live webcast at www.virtualshareholdermeeting.com/CDXS2026.

STOCK LISTING

The Nasdaq Global Select Market
Nasdaq Symbol: CDXS