

"TEMPUS

ANNUAL REPORT 2024

Dear Stockholders,

When I started Tempus, I believed that technology was about to transform healthcare. I could see the earliest signs beginning to emerge in oncology as physicians were just starting to sequence patients which, at scale, would produce large amounts of molecular data, the primordial ingredient necessary for precision medicine. Over time that data would be increasingly connected to clinical data from electronic health records. It didn't take much to realize that one day, we would be able to connect all of these data dots - matching outcome and response to molecular composition. I wanted to accelerate that day.

Back then, there were all kinds of really cool background technologies emerging - cloud computing, natural language processing, optical character recognition, and next generation sequencing - to name a few. These technologies allowed us to assemble large amounts of disparate data at a fraction of historic cost. I knew if we could assemble connected clinical and molecular data, we could ride the wave of these tools.

I had no idea that wave was about to become a tsunami with the emergence of Large Language Models (LLMs).

It is hard to overstate the significance of this moment in time. Part of me believes no matter how hyperbolic this letter is, time will make it seem understated. But I will try and toe the line between vision and reality.

The reality

In the United States we are collecting incredible amounts of paired clinical and molecular data. Tempus alone has amassed more than 300 petabytes of data across more than 40 million patients, of which we have sequenced approximately 3 million patients. This data routinely includes germline and somatic DNA, RNA, TCR/BCR profiles, HLA type, digitized H&Es, IHC stains, and scans matched with key phenotypic and therapeutic insights that provide us critical information about the patient, what drugs they are taking, and how they are responding.

Our data sets are amassed as part of routine clinical care with comprehensive genomic profiling (CGP) becoming a common part of therapy selection. Now with the proliferation of minimal residual disease (MRD) and monitoring assays, we are collecting incredible amounts of molecular data at multiple points throughout a patient's therapeutic journey. In other words, we are peering inside humans, at a molecular level, and seeing what's happening at each stage of disease progression.

This type of data has never before existed at scale.

At the same time, advancements in generative AI, in particular LLMs and Large Multimodal Models (LMMs), have taken the world by storm. Models such as ChatGPT, Llama, Gemini, and Claude are routinely performing tasks that seemed impossible for models to perform a few years ago - creating art, writing code, dispensing advice.

One of the biggest surprises over the last few years is not how LLM's work, but how they scale. As we have poured more data into the top of the funnel, and added more compute capacity, largely in the form of bigger GPU clusters, the models have scaled in an almost linear fashion. Pour in twice the amount of data, with twice the amount of compute, and you get a roughly corresponding lift in the performance of the model. We don't know if this scaling has a limit, but it has already produced models that are dazzling in their ability to query unstructured, messy data and produce harmonized and intelligent responses.

This is starting to impact healthcare as the first true use cases of AI being deployed clinically are beginning to emerge. Here are just a few of our own examples:

- Purist: Our PurIST algorithm, which identifies the molecular subtype of patients with pancreatic cancer, was granted the first CPT code by the American Medical Association to describe an algorithm-only analysis from previously-sequenced RNA.
- ECG-AF: Our AFib algorithm that runs on top of a standard 12-lead electrocardiogram (ECG) and is designed to predict undiagnosed atrial fibrillation (AFIB) not only received FDA approval, but the Centers for Medicare and Medicaid Services (CMS) announced that they will reimburse providers performing cardiac dysfunction assessments using the Tempus ECG-AF algorithm, currently paying \$138/algorithm.
- IPS: Our Immune Profile Score (IPS) assesses a combination of biomarkers to predict who might respond to immunotherapy. This algorithm takes the conventional biomarker (tumor mutational burden or TMB) and augments it with various RNA signatures, allowing for new insights into who is likely to respond to immunotherapy.

Each of these represents a first of its kind and demonstrates how we are beginning to see the benefits of AI derived from multimodal healthcare data.

The vision

Over the next few years, foundation models will continue to evolve, with improvements in their ability to process multimodal data and their ability to remember more, reason more, and recognize more. This will allow them to work with the different modalities of healthcare data at scale - pathology slides, radiology scans, molecular files, unstructured text, lab results, structured results, ultrasounds, ECGs, and more.

If you use vast amounts of multi-modal data for pre-training, feeding it to these new models with sufficient compute, and deep domain expertise to evaluate and fine-tune the models in post-training, you will likely unlock a plethora of associations between biological data elements that are routinely collected and outcomes and responses. This is the holy grail of precision medicine.

Imagine being able to sequence a patient and predict with high fidelity whether or not a drug will work (and in what dose). Imagine arming a physician with the knowledge of whether or not a patient will experience an adverse side effect or be at risk for some other condition based on a course of therapy. Imagine arming drug companies with near perfect information as to which clinical trials will succeed and fail. Imagine giving them a road map for new drugs that are highly targeted, highly efficient, and highly effective.

Precision medicine has not lived up to its hype. Neither did the internet in 1999. It took time for amazing products and services to evolve as the backbone of the internet at the time was incompatible with the world we live in today. There were dial up modems. Search didn't really exist. There was no social network. No iPhone.

In much the same way, we sequenced the human genome 22 years ago and then expected medicine to change overnight. But the ecosystem surrounding that initial discovery was in its infancy, much like the internet in 1999. Over the last 10 years, we have established the foundation to collect and assemble large amounts of multimodal data, which will accelerate personalized care. When I think of where we are in the cycle of adoption and change, I think of it a bit like - LLMs are to precision medicine what mobile was to the internet - a massive catalyst.

The meaning

So what does this mean for Tempus?

I'm routinely asked by investors who else is doing what Tempus is doing. In my opinion, no one. We are pioneers in trying to bring AI to diagnostics.

No one that has our breadth of sequencing capabilities across heredity screening, treatment selection, and monitoring. No one that is connected to thousands of hospitals building rich multimodal data sets across phenotypic, morphologic, and molecular data. No one that has our scale of AI based applications, helping close care gaps, routing patients to the right therapeutic, and enrolling patients in potentially life saving trials. No one that is tackling

oncology, radiology, pathology, cardiology, neuropsychology, and rare disorders at the same time.

I'm also routinely asked if we're doing too much. In my opinion, no. For AI to impact patient care, we're going to need solutions that are holistic in nature. They can't just work part of the time on part of the data. In much the same way Google doesn't search part of the internet, we need to be comprehensive.

In a world about to undergo a tsunami of change as a result of AI, our job at Tempus has never been more challenging and never more exciting. We expect that our business model will soon produce more than a billion dollars of revenue annually, allowing us to invest at scale to bring AI solutions to healthcare. We are fortunate to have thousands of integrated provider partners, hundreds of biopharma partnerships, and a team that is absolutely world class.

Thank you for joining us on this journey,

Eric Lefkofsky

CEO, Tempus

Forward-Looking Statements

This letter contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the “Securities Act”), and Section 21E of the Securities Exchange Act of 1934, as amended, about Tempus AI, Inc. (“Tempus”) and Tempus’ industry that involve substantial risks and uncertainties. All statements other than statements of historical facts contained in this letter are forward-looking statements, including, but not limited to, statements regarding Tempus’ plans, goals and objectives for its business and expectations concerning Tempus’ future financial and operating performance. In some cases, you can identify forward-looking statements because they contain words such as “anticipate,” “believe,” “contemplate,” “continue,” “could,” “estimate,” “expect,” “going to,” “intend,” “may,” “plan,” “potential,” “predict,” “project,” “should,” “target,” “will,” or “would” or the negative of these words or other similar terms or expressions. Tempus cautions you that the foregoing may not include all of the forward-looking statements made in this letter.

You should not rely on forward-looking statements as predictions of future events. Tempus has based the forward-looking statements contained in this letter primarily on its current expectations and projections about future events and trends that it believes may affect Tempus’ business, financial condition, results of operations and prospects. These forward-looking statements are subject to risks and uncertainties related to: changing Medicare rates; the intended use of Tempus’ products and services; Tempus’ financial performance; the ability to attract and retain customers and partners; managing Tempus’ growth and future expenses; competition and new market entrants; compliance with new laws, regulations and executive actions, including any evolving regulations in the artificial intelligence space; the ability to maintain, protect and enhance Tempus’ intellectual property; the ability to attract and retain qualified team members and key personnel; the ability to repay or refinance outstanding debt, or to access additional financing; future acquisitions, divestitures or investments; the potential adverse impact of climate change, natural disasters, health epidemics, macroeconomic conditions, and war or other armed conflict, as well as risks, uncertainties, and other factors described in the section titled “Risk Factors” in Tempus’ Annual Report on Form 10-K for the year ended December 31, 2024, filed with the Securities and Exchange Commission (“SEC”), as well as in other filings Tempus may make with the SEC in the future. In addition, any forward-looking statements contained in this letter are based on assumptions that Tempus believes to be reasonable as of this date. Tempus undertakes no obligation to update any forward-looking statements to reflect events or circumstances after the date of this letter or to reflect new information or the occurrence of unanticipated events, except as required by law.

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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, 2024

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 Number 001-42130

Tempus AI, Inc.

(Exact name of Registrant as specified in its Charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

47-4903308
(I.R.S. Employer
Identification No.)

600 West Chicago Avenue, Suite 510
Chicago, IL 60654
(Address of Principal Executive Offices, Zip Code)

Registrant's telephone number, including area code: (800) 976-5448

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Class A common stock, \$0.0001 par value per share	TEM	The Nasdaq Stock Market LLC

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 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, smaller reporting company, or an 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 Exchange Act). YES ☐ NO ☒

The aggregate market value of the voting and non-voting common equity held by non-affiliates of the Registrant, as of the last business day of the Registrant's most recently completed second fiscal quarter was approximately \$5.4 billion (based on the closing price of the Registrant's Class A common stock on the Nasdaq Global Select Market on June 28, 2024 of \$35.00 per share).

As of February 21, 2025, there were 167,168,911 shares of Class A common stock and 5,043,789 shares of Class B common stock, each with a par value of \$0.0001 per share, outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Registrant's definitive proxy statement, or the 2025 Proxy Statement, relating to its annual meeting of stockholders to be held in 2025, or the 2025 Annual Meeting, to be filed with the Securities and Exchange Commission, or the SEC, within 120 days after the end of the fiscal year to which this Annual Report on Form 10-K relates, are incorporated herein by reference where indicated. Except with respect to information specifically incorporated by reference in this Annual Report on Form 10-K, such proxy statement is not deemed to be filed a part hereof.

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NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K, including the sections titled “Business” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” contains forward-looking statements about us and our industry that involve substantial risks and uncertainties. All statements other than statements of historical facts contained in this Annual Report on Form 10-K or incorporated herein, including statements regarding our future results of operations or financial condition, business strategy and plans and objectives of management for future operations, are forward-looking statements. In some cases, you can identify forward-looking statements because they contain words such as “anticipate,” “believe,” “contemplate,” “continue,” “could,” “estimate,” “expect,” “intend,” “may,” “plan,” “potential,” “predict,” “project,” “should,” “target,” “will” or “would” or the negative of these words or other similar terms or expressions. Within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act, these forward-looking statements contained in this Annual Report on Form 10-K include, but are not limited to, statements concerning the following:

- the evolving treatment paradigm for cancer, including physicians’ use of molecular data and targeted oncology therapeutics and the market size for our current and future products;
- our ability to expand our business beyond oncology into new disease areas;
- estimates of our addressable market and our expectations regarding our revenue, expenses, capital requirements and operating results;
- our ability to develop new products and services, including our goals and strategy regarding development and commercialization of AI Applications;
- our ability to maintain and grow our datasets, including in new disease areas and geographies;
- any expectation that the growth of our datasets will improve the quality of our products and services and accelerate their adoption;
- our ability to capture, aggregate, analyze or otherwise utilize genomic data in new ways and in additional diagnostic modalities;
- any expectation that we will continue to commercialize de-identified records and license them to multiple customers;
- the acceptance of our publications in peer-reviewed journals or of our presentations at scientific and medical conference presentations;
- the implementation of our business model and strategic plans for our products, technologies and businesses;
- competitive companies and technologies and our industry;
- the potential of Intelligent Diagnostics to be disruptive across a broad set of disease areas and the clinical trial process;
- our ability to manage and grow our business by expanding our sales to existing customers or introducing our products to new customers;
- third-party payer reimbursement and coverage decisions, including our strategy to increase reimbursement;
- our ability to establish and maintain intellectual property protection for our products or avoid claims of infringement;
- potential effects of evolving and/or extensive government regulation;
- the timing or likelihood of regulatory filings and approvals;
- our ability to hire and retain key personnel;
- our ability to expand internationally, including through our joint venture, SB Tempus Corp., or SB Tempus, in Japan;
- our ability to successfully acquire businesses, form joint ventures or make investments in companies or technologies, including our ability to realize the expected benefits of strategic plans, including our acquisition of Ambry Genetics Corporation, or Ambry;

- our ability to protect and enforce our intellectual property rights, including our trade secret protected proprietary rights in our platform;
- our ability to service or pay down existing or future debt obligations;
- our anticipated cash needs and our needs for additional financing; and
- anticipated trends and challenges in our business and the markets in which we operate.

You should not rely on forward-looking statements as predictions of future events. We have based the forward-looking statements contained in this Annual Report on Form 10-K primarily on our current expectations and projections about future events and trends that we believe may affect our business, financial condition and operating results. The outcome of the events described in these forward-looking statements is subject to risks, uncertainties and other factors described in Part I, Item 1A, “Risk Factors” in this Annual Report on Form 10-K. Moreover, we operate in a very competitive and rapidly changing environment. New risks and uncertainties emerge from time to time, and it is not possible for us to predict all risks and uncertainties that could have an impact on the forward-looking statements contained in this Annual Report on Form 10-K. The results, events and circumstances reflected in the forward-looking statements may not be achieved or occur, and actual results, events or circumstances could differ materially from those described in the forward-looking statements.

In addition, statements that “we believe” and similar statements reflect our beliefs and opinions on the relevant subject. These statements are based on information available to us as of the date of this Annual Report on Form 10-K. And while we believe that information provides a reasonable basis for these statements, that information may be limited or incomplete. Our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all relevant information. These statements are inherently uncertain, and investors are cautioned not to unduly rely on these statements.

The forward-looking statements made in this Annual Report on Form 10-K relate only to events as of the date on which the statements are made. We undertake no obligation to update any forward-looking statements made in this Annual Report on Form 10-K to reflect events or circumstances after the date of this Annual Report on Form 10-K or to reflect new information or the occurrence of unanticipated events, except as required by law. We may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements, and you should not place undue reliance on our forward-looking statements. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures or investments.

PART I

Item 1. Business.

Overview

We endeavor to unlock the true power of precision medicine by creating Intelligent Diagnostics through the practical application of artificial intelligence, or AI, in healthcare. Intelligent Diagnostics use AI, including generative AI, to make laboratory tests more accurate, tailored, and personal. We make tests intelligent by connecting laboratory results to a patient's own clinical data, thereby personalizing the results. Our novel insight was realizing that all laboratory test results, genomic or otherwise, could be contextualized for a specific patient based upon that patient's unique characteristics, and technology could therefore guide therapy selection and treatment decisions to allow each patient to progress on their own unique path. The drugs recommended, the clinical trials explored, the care pathways evaluated, the adverse events considered—all have the potential to be refined and enhanced when test results are connected to a patient's personal profile, enabling the right patient to be routed to the right therapy at the right time.

To accomplish this, we built the Tempus Platform, which comprises both a technology platform to free healthcare data from silos and an operating system to make the resulting data useful. Our proprietary technology has allowed us to amass what we consider to be one of the largest libraries of clinical and molecular oncology data in the world. Our goal is to embed AI, including generative AI, throughout every aspect of diagnostics to enable physicians and researchers to make personalized, data-driven decisions that improve patient care.

The ability to deploy AI in precision medicine at scale has only recently become possible. Advances in cloud computing, imaging technologies, large language models and low-cost molecular profiling, along with the digitization of vast amounts of healthcare data, have created a landscape that we believe is finally ripe for AI. However, despite an increase in the availability of healthcare data, physicians and researchers are largely unable today to leverage this data to improve patient care. The vast majority of healthcare data remains disconnected and lacks harmonization and structure. Traditional diagnostic tests are typically based only on a single data modality, such as a blood-based biomarker or a genomic mutation, and do not connect and integrate other forms of relevant clinical data, such as outcomes, or adverse events, or pathology results, which are essential for many clinical decisions.

In order to bring AI to healthcare at scale, we believe the foundation of how data flows throughout the ecosystem needs to be rebuilt. We established new data pipes, going to and from providers, to allow for the free exchange of data between physicians, who interpret data, and diagnostic and life science companies, who provide data, integrating relevant clinical data, such as outcomes, or adverse events, which are essential for many clinical decisions. Without this capability, we believe that data would continue to accumulate without impacting patient care. To accomplish this, we built both a technology platform to free healthcare data from silos and an operating system to make this data useful, the combination of which we refer to as our Platform. Our Platform connects multiple stakeholders within the larger healthcare ecosystem, often in near real time, to assemble and integrate the data we collect, thereby providing an opportunity for physicians to make data-driven decisions in the clinic and for researchers to discover and develop therapeutics. We aim to help physicians find the best therapies for their patients, help pharmaceutical and biotechnology companies make the best drugs possible, and enable patient access to emerging therapies and clinical trials when appropriate.

Tempus is a technology company focused on healthcare that straddles two converging worlds. We strive to combine deep healthcare expertise, providing next-generation diagnostics across multiple disease areas, with leading technology capabilities, harnessing the power of data and analytics to help personalize medicine. We endeavor to unlock the true power of precision medicine by creating Intelligent Diagnostics through the practical application of artificial intelligence, or AI, in healthcare. Intelligent Diagnostics use AI, including generative AI, to make laboratory tests more accurate, tailored, and personal. Unlike traditional diagnostic labs, we can incorporate unique patient information, such as clinical, molecular, and imaging data, with the goal of making our tests more intelligent and our results more insightful. Unlike other technology companies, we are deeply rooted in clinical care delivery as one of the largest sequencers of cancer patients, and patients with other diseases, in the United States. Straddling both worlds is advantageous as we believe Intelligent Diagnostics represent the future of precision medicine, informing more personalized and data-driven therapy selection and development. We believe their adoption could empower physicians to deliver better care and researchers to develop more precise therapies, with the potential to save millions of lives.

Our Platform includes proprietary software and dedicated data pipelines that create a network of healthcare institutions through approximately 700 unique data connections, many of which supply us with complex multimodal data in near real time, across approximately 3,000 healthcare institutions that order our products and services. Healthcare institutions supply us with this data in our capacity as a covered entity (for example, when we provide Next Generation Sequencing, or NGS, services on behalf of a patient), or as a business associate (for example, when we provide clinical trial matching services or data de-identification and structuring services). In addition to the data we receive in these capacities, we currently have a limited number of paid license agreements through which we acquire de-identified data directly from healthcare associations or institutions, and in certain circumstances we cover the actual direct costs associated with the technical integrations needed to create a data connection. We then integrate this data into a unified multimodal database through which we offer numerous analytical and decision support capabilities to our customers. We establish dedicated and integrated data connections with healthcare institutions to enhance the information we provide in our clinical reports, to increase the effectiveness of our clinical trial matching services, and to enable our AI Applications product line, which we believe has the ability to transform healthcare.

We have developed multiple products—each based on our Platform—that have allowed us to invest in structuring and harmonizing multimodal data, which is a necessary precursor for deploying AI at scale. Our products are organized under three product lines, *Genomics*, *Data*, and *AI Applications or Algos*. Each product line is designed to enable and enhance the others, thereby creating network effects in each of the markets in which we operate. Our business model allows pharmaceutical and biotechnology companies to unlock value from the data we collect, and allows us to monetize a de-identified copy of that data, in different ways across our different product lines. We believe these network effects provide a unique advantage to our business as the compounding value of each data record in our database serves to enhance our competitive moat. The more data we collect, the smarter our tests become, the more applications we launch, the more physicians join our network, further growing our database, making our tests more precise for clinicians and our database more valuable for researchers.

The more data we collect, the smarter our tests become, the more applications we launch, the more physicians join our network, further growing our database, making our tests more precise for clinicians and our database more valuable for researchers.

Our *Genomics* product line leverages our laboratories to provide NGS diagnostics, PCR profiling, and other anatomic and molecular pathology testing to healthcare providers, life sciences companies, researchers, and other third parties. However, unlike other laboratory diagnostic testing providers, many of our tests are connected to clinical data in some manner, which allows our suite of tests to be self-learning and become more accurate with each new test that we run. Our *Data and Services* product line facilitates drug discovery and development for life sciences companies through two primary products, *Insights* and *Trials*. Through our *Insights* product, we license de-identified libraries of linked clinical, molecular, and imaging data and provide a suite of analytic and cloud-and-compute tools to pharmaceutical and biotechnology companies. Our second product within our *Data and Services* product line, *Trials*, leverages the broad network of physicians we work with in oncology to provide clinical trial support for pharmaceutical companies that are looking to reach hard-to-find and underserved patient populations. Our third product line, *AI Applications*, is focused on developing and providing diagnostics that are algorithmic in nature, implementing new software as a medical device, and building and deploying clinical decision support tools. The primary product of *AI Applications* is currently “Next,” an AI platform that leverages machine learning to apply an “intelligent layer” onto routinely generated data to proactively identify and minimize care gaps for oncology and cardiology patients. As this product gains adoption, we intend to leverage large language models, generative AI algorithms, and our vast database of de-identified data to develop algorithmic diagnostics designed to identify these patients earlier in their disease progression, when treatments are most effective.

Industry Background

The Limitations of Employing Technology, Data, and AI in Healthcare and Precision Medicine

Technology has had a significant impact on almost every sector of our global economy. From the way we shop online, access information on the internet, or use GPS to navigate the world. We benefit from, and depend on, technology, data, and the vast computational and connective ecosystem that surrounds us. Yet healthcare has seemingly lagged other industries in embracing the power of technology and leveraging the ensuing computational revolution.

We believe this is changing. Recent technological advancements have facilitated the deployment of modern computational methods, such as AI and machine learning, to improve healthcare. Breakthroughs in cloud computing, imaging technologies, large language models, and low-cost molecular profiling have made it easier and more cost effective to digitize, structure, harmonize, and store healthcare data, and analyze the resulting datasets at an unprecedented rate. These developments are expediting the adoption of AI, which we believe will impact all aspects of healthcare, from clinical diagnostic testing to the discovery and development of therapeutics, to healthcare delivery more broadly.

Despite the accumulation of healthcare data, we believe the healthcare system still lacks the integrated networks and modern analytical tools necessary to facilitate data-driven care at scale. The vast majority of healthcare data created today remains locked in silos and lacks harmonization due to decentralized institutions using non-standardized methods for collecting data, in addition to a large percentage of the data being in unstructured formats like free text (such as physician progress notes) and non-digitized images (such as pathology slides). Clinical outcomes data, to the extent it even exists, often remains disconnected from diagnostic data, and traditional laboratory tests provide results that are often based only on a single data modality that lack patient context. In addition, clinical and research decisions are too often made based on small sample sizes of historic data.

In order to bring AI to healthcare at scale, we began by rebuilding the foundation of how data flows in and out of healthcare institutions, which we refer to as the Tempus Platform. We have established data pipes, going to and from providers, which allow for the free exchange of data between physicians, who interpret data, and diagnostic and therapeutic companies, who provide data. Harnessing the power of this data at scale required a Platform that could break down data silos, collect vast amounts of multimodal data, structure and harmonize it, and deploy AI to make it useful for physicians and researchers to make data-driven decisions in the clinic or at the lab bench, thereby advancing precision medicine. Our access to broad and diverse data serves as the basis for our ability to train generative AI models, and we believe our relationships with healthcare institutions provide us with proprietary data to deliver on the promise of AI in healthcare. Without this Platform, we believe the data would continue to pile up at an increasing rate without improving patient care. We have built a version of this Platform and are now deploying it at scale in oncology in the United States, with other disease areas following.

Importance of Multimodal Healthcare Data

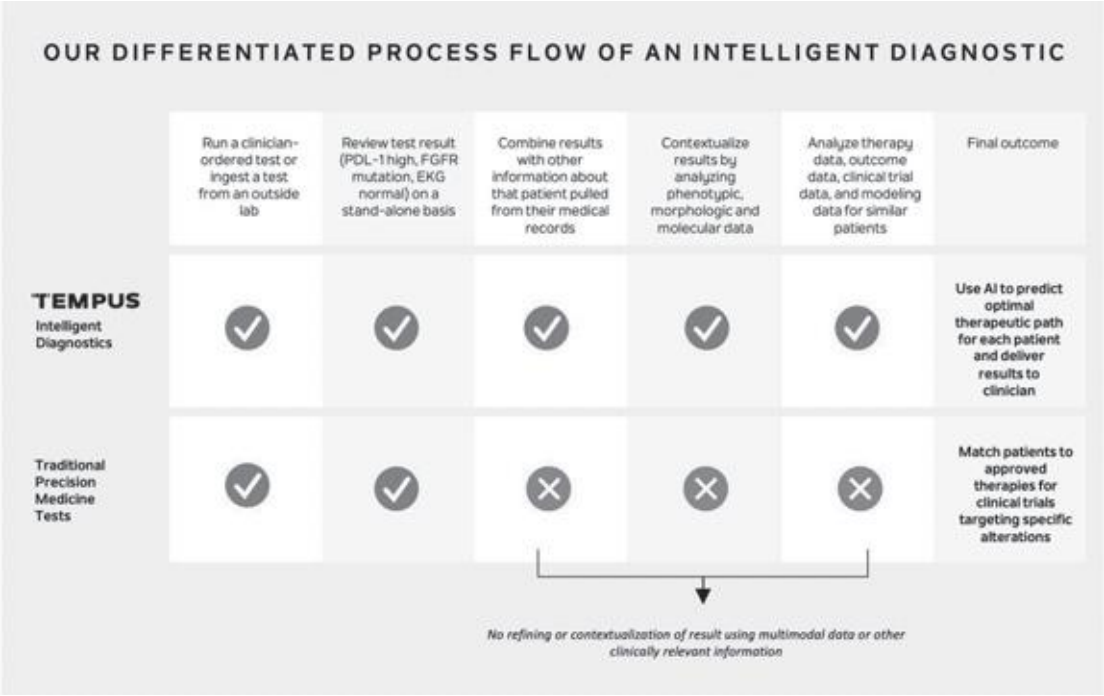
Technology is enabling the healthcare industry to collect data at an unprecedented scale, yet most datasets continue to be fractured or narrowly focused by disease type or data modality; almost none are comprehensive enough to provide a full picture of the patient and their clinically relevant characteristics. We set out to solve that problem by building a platform that collects broad datasets in near real time and at scale. Our Platform is differentiated in several ways. First, we collect data from multiple diagnostic modalities, including NGS, anatomic pathology slides, radiology images, and other laboratory tests. Second, the data we collect is often connected to EHR data, such as key phenotypic characteristics, therapeutic data, and clinical outcome and response data. Third, our Platform is multi-disease, spanning oncology, neurology, cardiology, and infectious disease. Our Platform is purpose built to deploy AI at scale, using multimodal datasets, across disease areas. We believe these differentiators have the potential to transform healthcare.

A New Industry: Intelligent Diagnostics to Advance Precision Medicine

While AI has the potential to broadly impact healthcare, we believe it will transform diagnostics first. Diagnostics, broadly defined, is the process of determining by examination or assessment the nature and circumstance of disease. Physicians use diagnostics all the time; they order blood tests, biopsies, scans, genomic tests, and others. Physicians rely on diagnostic results to make the vast majority of their treatment decisions. Researchers rely on diagnostic tests to better understand disease and make better decisions throughout their discovery processes.

The ability to leverage generative AI on top of large, harmonized, multimodal datasets provides the opportunity to make diagnostic tests more personalized, and therefore more intelligent. Intelligent Diagnostics incorporate an individual patient’s longitudinal phenotypic, morphologic, and molecular data, including outcome data from the patient’s EHR, to give laboratory test results clinical context. In doing so, Intelligent Diagnostics can leverage generative AI to make laboratory tests more accurate, tailored, and personal. The test result itself is designed to be specific to each patient and their own unique patient journey. The result is also informed by our large dataset that enables association of clinical outcomes and therapeutic response for patients who are similar to the patient being treated.

The process for making a diagnostic “intelligent” improves upon the process for performing genomic testing, by leveraging technology and data to add clinical context and therapeutic insights. An Intelligent Diagnostic requires the following: (i) perform a laboratory test or ingest results from a laboratory test; (ii) review the test results on a stand-alone basis; (iii) combine the stand-alone results with other forms of relevant clinical data from that patient’s medical records; (iv) contextualize or reconfigure the stand-alone laboratory results to the extent necessary with the insight derived from that patient’s clinical history; (v) include the outcome and response data of patients who are similarly situated to the patient for whom the test was ordered; and (vi) use generative AI to derive analytical and clinically relevant insights and provide those to the physician and patient. See below for an illustration comparing an Intelligent Diagnostic to a standard genomic test:



We believe the adoption and deployment of Intelligent Diagnostics will have a substantial impact on patient care. In oncology, for example, Intelligent Diagnostics have the potential to eventually incorporate insights using data from molecular and anatomic pathology, bioinformatics, genomic variant analysis, inherited cancer risk, computational biology, drug label data, noted adverse events, clinical trial data, research publications, investigational studies, care pathways, real world evidentiary studies, and phenotypic and morphologic data. We already have the ability to incorporate many of these data elements today.

The consequence of incorporating multimodal data is to make precision medicine “personalized” as opposed to “targeted.” A targeted diagnostic test might find a specific condition or characteristic of a patient that is relevant to a particular therapy. For example, in cancer, a targeted diagnostic test may identify a genomic biomarker that could inform therapy selection, such as identifying a HER2 amplification that would allow a HER2 inhibitor to be prescribed to a breast cancer patient. The standard test to determine whether a HER2 amplification is present (other than at Tempus) is typically not designed to assess factors such as whether the patient is male or female, old or young, or has diabetes or a heart condition. Nor does the standard test consider the medication the patient has taken or is currently taking, or the adverse events the patient has experienced.

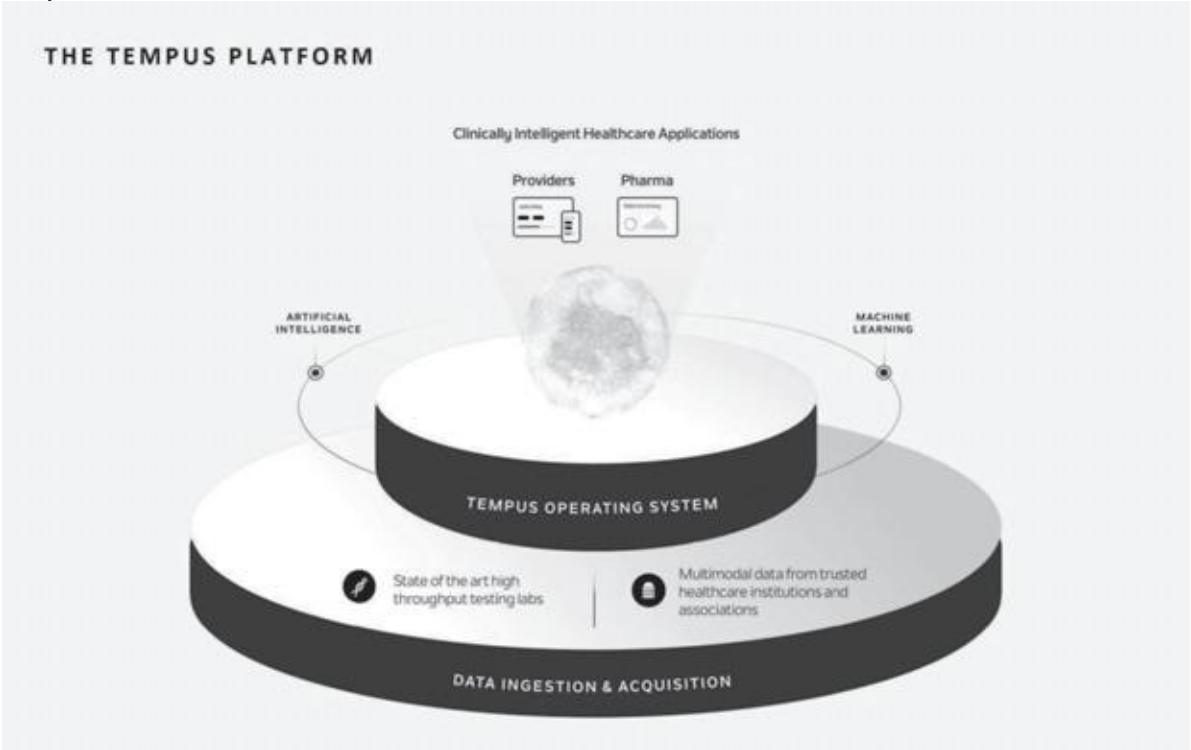
An Intelligent Diagnostic test, by contrast, might recommend specific therapies based not just on a singular characteristic, but on the comprehensive profile of the patient who will receive the proposed therapy. For example, an Intelligent Diagnostic might highlight that the breast cancer patient should consider immunotherapy before taking the HER2 inhibitor, or might highlight a series of adverse events the physician should be aware of based on other phenotypic characteristics for that patient, such as if the patient had a heart condition and therefore an elevated risk of a cardiac adverse event from taking the HER2 inhibitor. By linking multimodal data regarding both the disease, such as cancer or diabetes, and the host, our tests can provide a more comprehensive and holistic view of the patient and reconfigure results based in part on the clinical data we collect and the aggregate information in our database.

Intelligent Diagnostics also have the potential to disrupt the clinical trial process. Today new therapies are typically approved based on randomized clinical trials that apply to broad populations and demonstrate incremental improvements over the existing standard of care. The current process suffers from several inherent flaws. First, clinical trials are generally expensive and slow to complete. Second, if and when therapeutics are approved, they can have less of an impact on the larger population than the trial population, given an inherent bias on who has access to academic medical centers and emerging studies. Third, many new therapies are only effective on a subset of patients that enter clinical trials.

We believe Intelligent Diagnostics, AI, and technology broadly can help solve these problems. We believe our ability to contextualize test results to individual patients, to incorporate real world evidence at scale, to identify patterns across similarly situated patients, will help physicians make better, data-driven decisions— which drug to prescribe, which trial to consider, and so on.

The Tempus Platform

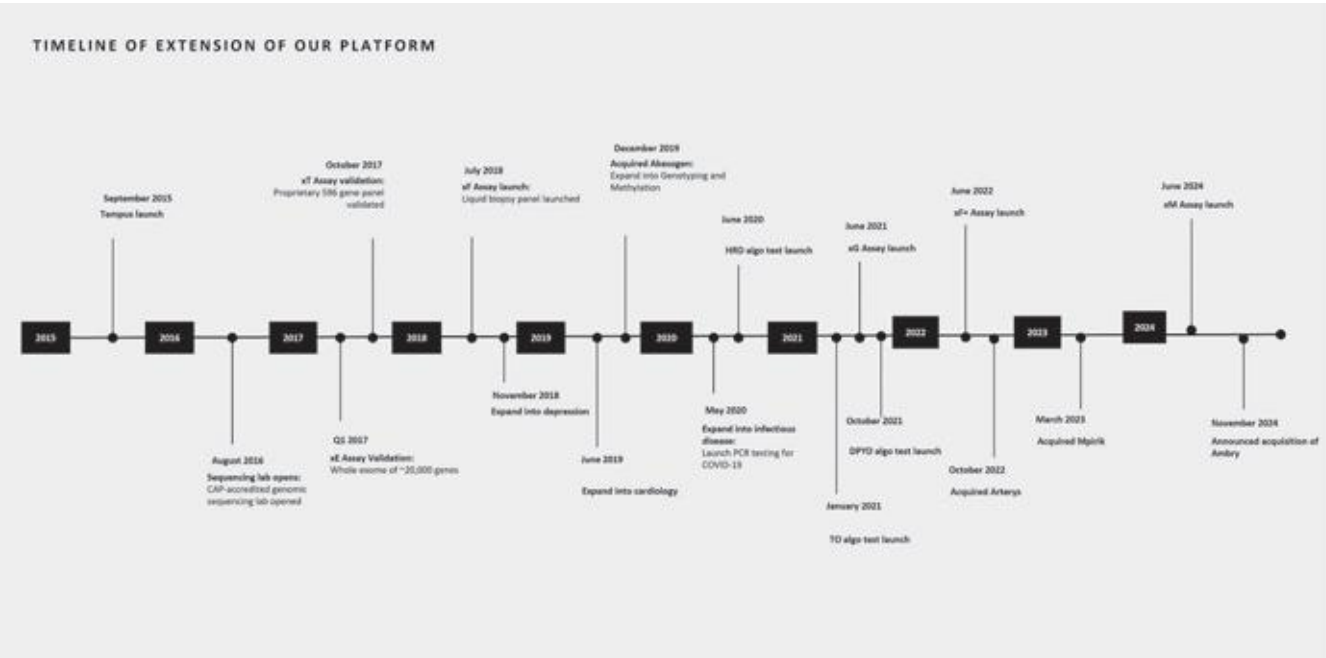
Tempus set out to build proprietary technology to implement Intelligent Diagnostics and to facilitate access to, and use of, the resulting datasets. The Tempus Platform connects multiple stakeholders within the larger healthcare ecosystem and provides both the technical infrastructure for what we consider to be one of the world’s largest libraries of matched clinical and molecular data, and an operating system to make that information useful. Our Platform is end-to-end and vertically integrated. It allows us to ingest data from providers, perform diagnostic testing upon request, generate results leveraging our multimodal database, and provide clinical context for a specific patient. Below is a graphic illustrating our Platform’s core functionality.



We believe our AI-enabled Platform can provide unique value whenever two conditions exist: a heterogeneous diseased population and a variety of therapeutics or therapeutic pathways, which are often prescribed based on trial and error. For example, in oncology, there is a diverse population diagnosed with cancer, and each subtype has different characteristics. The combination of unique patient characteristics and different cancer subtypes results in a variety of phenotypic attributes (old, young, male, female, black, white, etc.). In addition, there are hundreds of possible therapeutic paths to consider in cancer (surgery, radiotherapy, chemotherapy, targeted therapy, immunotherapy, etc.). These conditions create an ideal backdrop for the benefits of big data and AI.

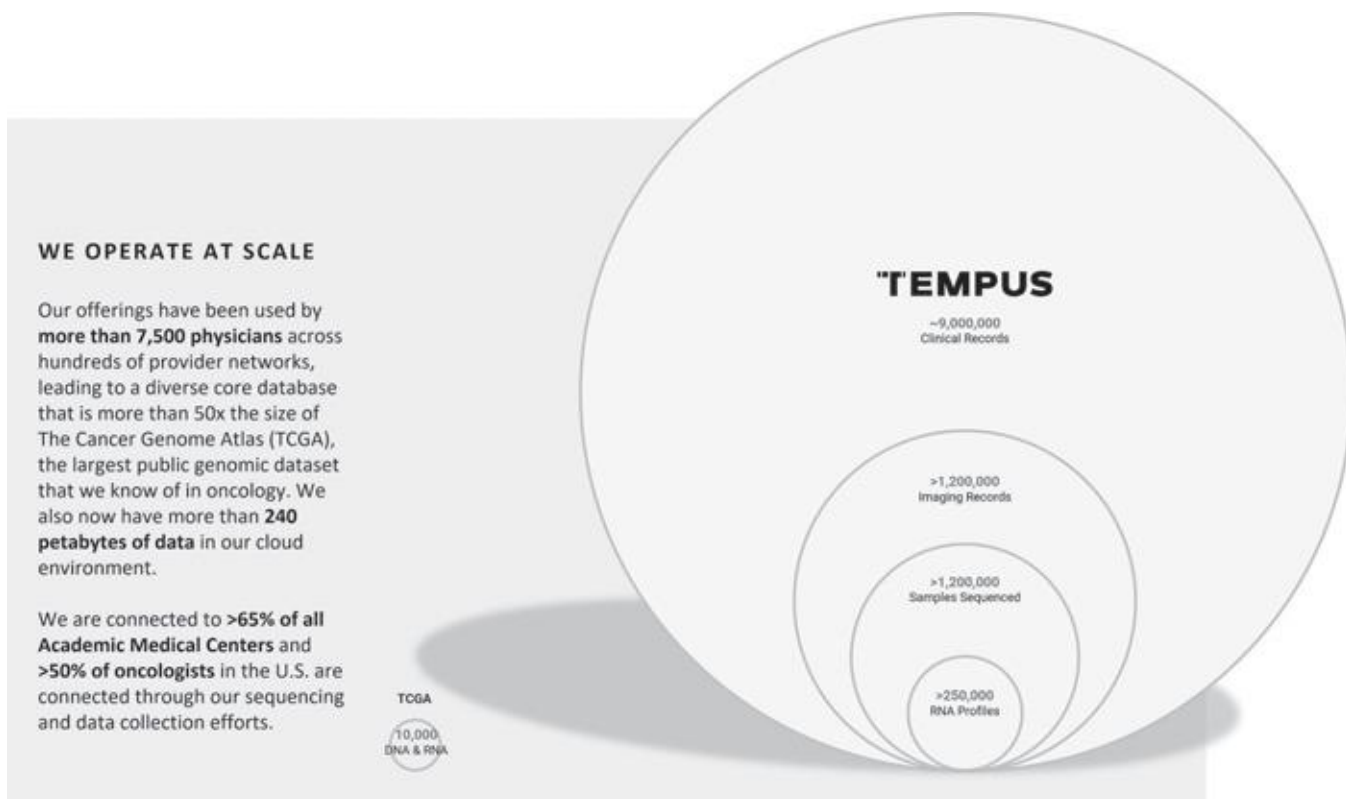
The same is true in neuropsychiatry. A heterogeneous population suffers from numerous neurological disorder subtypes, such as depression, anxiety, bipolar disorder, and other psychiatric conditions. Like oncology, there is a diverse patient population and a number of prescribed antidepressants, often based on trial and error. Further, the complexity of oncology, neuropsychiatry, and many other major causes of morbidity necessitate a multimodal data approach, as any single modality (e.g., DNA-only) is unlikely to provide enough information to differentiate meaningful patient subgroups. We believe technology and AI should facilitate data associations and substantially reduce the guesswork associated with which drug to prescribe, in what amount, and in which order.

Facilitated by our relationships with many leading hospitals across the healthcare system in the United States, we believe we are well positioned to introduce precision medicine at scale across multiple disease categories and drive adoption of our Platform and novel AI solutions. We are leveraging our ability to collect, structure and harmonize data, and deploy AI on large datasets to facilitate precision medicine broadly. We initially deployed our Platform in oncology, expanded substantially within oncology, and recently extended into neuropsychiatry, radiology, and cardiology. Below is a timeline of our Platform’s evolution, both within oncology and into different disease categories:



Core Elements of our Platform

The Tempus Platform combines multiple elements into a vertically integrated infrastructure that enables us to ingest data from providers, structure and harmonize the data into a common database, provide laboratory diagnostic testing, and deliver personalized results that provide clinical context by leveraging our data. We offer closed-loop, full- stack, bi-directional integrations between a clinician’s desktop and our laboratory diagnostic capabilities, analytics platform, and repository of multimodal data. Our scaled, interconnected provider network covers more than 50% of U.S. oncologists and provides us with broad data rights, including the rights to longitudinally updated data from time to time. The combination of our Platform and vast provider network yields a powerful flywheel that continues to become more accurate and precise as more patients are added, thereby compounding the network effects of our offering. We believe each of these elements is difficult for competitors to replicate, and together represent a significant competitive advantage. The following diagram represents the different elements of our Platform.



Ingestion and Generation of Data

We ingest healthcare data in near real time and at scale, including molecular, clinical, and imaging data. Between our sequencing and data collection efforts, we are connected in some way to more than 50% of all oncologists practicing in the United States, along with a growing number of patients in neuropsychiatry, cardiology, and infectious disease. Our methods for collecting and creating data include the following:

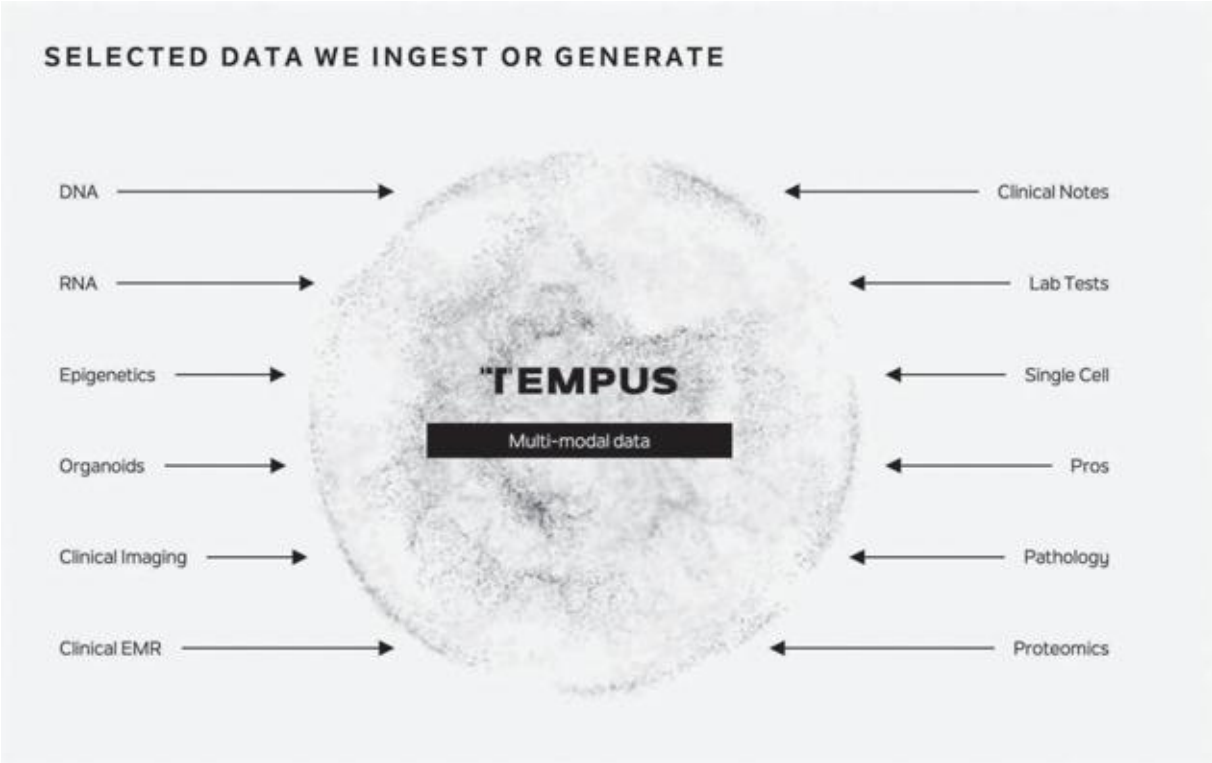
Ingesting data through our relationships and partnerships with healthcare providers. We have developed proprietary tools to establish approximately 700 direct data connections, across approximately 3,000 hospitals, many of which are bi-directional. We have established relationships with hundreds of provider networks, including more than 65% of all academic medical centers in the United States. To obtain data from these sources, we use a variety of near real-time connections (e.g., HL7, FHIR) and batch data exchanges. Healthcare institutions supply us with this data in our capacity as a covered entity (for example, when we provide NGS services on behalf of a patient), or as a business associate (for example, when we provide clinical trial matching services or data de-identification and structuring services). We ingest and structure data using optical character recognition, or OCR, natural language processing, or NLP, and proprietary workflow tools along with manual data curation. Our proprietary tools connect to a provider's EHR system, data warehouse, or third-party data provider to pull out relevant structured and unstructured data that the provider has agreed to provide to Tempus, including longitudinal follow-up data to the extent the provider has made such data available. To facilitate these data-sharing relationships, we have developed software products and services that align to our customers' interests by helping providers use our software tools to improve patient care. In certain circumstances, we cover the actual direct costs associated with the technical integrations needed to create a data connection. We cover these costs to help facilitate providers' contribution of data and their corresponding use of our products, which then makes our tests more intelligent and helps them to facilitate the delivery of better care. We generally retain the rights we acquire in de-identified data even if our contractual obligations expire or are terminated.

Relationships with industry associations. In addition to healthcare providers, we work with numerous industry associations in the United States, such as ASCO. Under our collaboration with ASCO, we structure and distribute the oncology data ASCO collects as part of CancerLinq, which is their oncology data effort. We work with other large associations such as ONCare Alliance, LLC (surviving entity after merger of the National Cancer Care Alliance and the Quality Cancer Care Alliance), and have agreements in place with large integrated community practices. While our

relationships in oncology are widespread, we are making inroads in other disease areas. For example, we are working with a large hospital network to train algorithmic models based on a de-identified subset of approximately 3.5 million electrocardiograms, or ECGs, across more than 800,000 patients, with decades of longitudinal clinical data, including outcome and response data. We also have agreements with numerous other institutions through both our sequencing and data efforts to collect and structure multimodal infectious disease data, and have entered into a variety of partnerships and collaborations across neuropsychiatry, diabetes, and cardiology giving us access to additional clinical data.

Laboratory diagnostics. In addition to our dedicated data pipelines, we generate data for our Platform from our four high-throughput diagnostic testing labs in Chicago, Atlanta, Raleigh, and Aliso Viejo. Our labs offer a range of anatomical and molecular NGS tests, including a broad portfolio of solid tumor and liquid biopsy cancer tests. Our laboratory offerings enable us to populate our database with connected and comprehensive molecular, clinical, and morphologic data that has been de-identified. We also make available an unrestricted copy of the raw files containing the rich data we generate in the laboratory, along with any clinical data we curate, to the providers who order our tests, to further enable their own research efforts. In February 2025, we acquired Ambry Genetics Corporation, or Ambry, a leader in hereditary cancer screening and the supplier of our germline sequencing (Tempus|xG) for hereditary cancer risk. With the acquisition of Ambry, we can leverage its vast amounts of data to augment our current data offerings. Further, Ambry’s offerings span multiple disease areas, enabling us to expand beyond oncology into new categories, such as pediatrics, rare disease, cardiology, reproductive health and immunology. Additionally, Ambry’s significant laboratory capabilities on the west coast will help increase our overall footprint in the country.

We ingest and generate a variety of different types of data from different sources. The following represents selected data modalities that we collect and aggregate into our database.



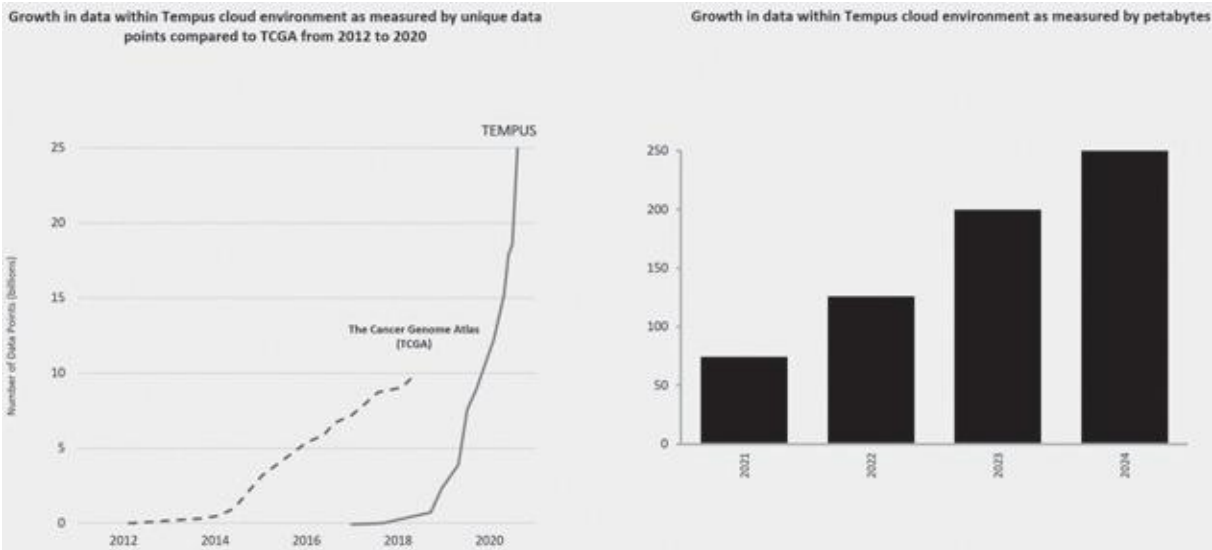
Proprietary Data Processing

Once data is ingested, we deploy proprietary clinical data abstraction tools, including natural language processing, optical character recognition, and our abstraction software, to structure, harmonize, and de-identify the data we collect. We have developed various software tools, including algorithmic agents that leverage large language models, to organize millions of records into a common format that spans a variety of data types. For example, we organize clinical data from unstructured documents and structured EHR fields, and typically digitize whole-slide pathology images as part of our clinical workflow. We then combine this data with the molecular data that we generate in our labs or process from third parties, giving us a more comprehensive profile of patients. Unstructured data housed in physician notes and other documents is processed using OCR and NLP, mapped to Tempus’ Medical Ontology, and routed to data abstractors for further curation and quality control. Typically we receive identified data, either in our capacity as a covered entity under the Health Insurance

Portability and Accountability Act, or HIPAA, or to the extent we have a business associate agreement with the provider. Following abstraction and structuring, we de-identify data and only retain the resulting de-identified dataset, other than through our obligations to retain selected identified data as a covered entity providing laboratory tests to clinicians. Many clinicians who order Tempus tests clinically are also involved in research related activities. By making this organized and structured data available to the clinicians (along with raw files associated with the testing we perform) we serve, those clinicians can use the data to further their own research efforts to help patients.

Our Proprietary Multimodal Database

We believe most healthcare databases lack real-time functionality, depth among data types, and the scale of matched clinical and molecular records needed to meaningfully improve therapeutic research and development. Tempus is attempting to solve this problem by democratizing the use of near-real time molecular, clinical, and imaging data by embedding our solution into the clinical care of patients. As our testing volume has grown, and as our dedicated data pipelines have expanded, the size of our database has increased exponentially. Since we launched our Platform in 2016, Tempus has amassed over 900 million documents, across more than 7.3 million de-identified patient records, including over 1.1 billion pages of rich clinical text that we use to train our large language models. The database also includes over 1,400,000 records with imaging data, more than 1,300,000 with matched clinical records linked with genomic information, and more than 260,000 with full transcriptomic profiles. Within oncology specifically, we believe this represents one of the largest and most comprehensive molecular libraries of cancer patients in the world. The breadth of our database, the quality and diversity of our data, as well as its regularly updating nature, allow us to offer a variety of AI-enabled solutions to the market. We believe our unique data set enables us to bring the benefits of generative AI and large language models to healthcare, as our curated, multimodal database can be used as a proprietary training set to build a variety of AI based applications, which we intend to deploy through our existing network and distribution platform. We also retain the rights to broadly commercialize de-identified data. As the amount of data in our cloud environment continues to grow from its current size of more than 240 petabytes, we believe new AI applications and opportunities will emerge that are only possible with scale, driving innovations in patient treatment that were previously unattainable. The following diagram represents the growth of our database over time.



Another valuable attribute of our dataset is the number of different data modalities represented. We believe multimodal data is a necessary predicate to successfully build and deploy AI-based applications given the complexity of disease and the various attributes across different forms of data (e.g., text, images, molecules, etc.). As of December 31, 2024, our database included the following types of data, among others:

SUMMARY OF THE CONTENTS OF THE TEMPUS DATABASE			
Clinical Data ~9,000,000	Imaging Data >1,200,000	Clinical + Molecular Data >1,400,000	Tempus Samples Sequenced >1,200,000
Clinical data profiles collected from our provider partners' EMRs + relationships with associations Onco database includes approx.: ~8.0 million de-identified patient records ~1.9 million outcomes ~310 million procedures ~1.1 billion medications ~990 million documents ~16 million noted biomarkers	Imaging files collected through our data pipelines, our anatomic pathology lab tests, and our Geisinger partnership >1 million patients with cardiac data >1 million pathology images	Our matched clinical and molecular dataset profiles consist of both the tumor's molecular profile and various phenotypic data elements (therapy data, time on treatment, and clinical outcome) and treatment response data, when and to the extent available We compiled this matched dataset by sequencing patients for our provider partners (who supply clinical data) and ingesting data through our relationships with provider partners	This dataset includes both clinical and molecular data from the patients Tempus has sequenced (e.g. somatic, germline, DNA, and RNA data) ~260,000 patient samples from full transcriptomic analysis

Footnote: Our clinical data typically includes the following information to the extent provided and abstracted by Tempus: unique identifier; age; sex; race/ethnicity; histology; stage of disease; sample type (primary vs. metastatic); anatomical site of sample and method of procurement; cancer treatment history, including therapies administered; timing of relapse and timing of treatments, including cancer-related treatments and surgery; genomic profiling results (e.g., internal, external providers); tumor response; progression free survival; RECIST or equivalent; ECOG/Karnofsky scores, or equivalent; and adverse events.

Proprietary Software Tools and Solutions

We have developed numerous software tools and applications to help make our services accessible to multiple constituencies within the healthcare ecosystem and support our various product lines. We believe this system architecture, which employs AI techniques such as neural networks, deep learning, large language models, and other statistical learning techniques to generate patient-specific insights. We are able to not only train and validate some of these AI models for research use, but we can also develop them into clinical-grade algorithmic tests, or Algos, and deploy them clinically as part of routine care. As our data advantage and system architecture continue to improve, we believe our existing Intelligent Diagnostics will gain further adoption thereby accelerating our ability to deploy technologies, including AI Applications, in the clinical setting.

We are both a healthcare company and a technology company, which we believe allows us to more quickly and effectively develop and deploy AI techniques within our proprietary software systems. To do so, we rely on employees with expertise spanning multiple disciplines, including those with PhDs and other advanced degrees in the scientific fields of machine learning, data science and computational biology, as well as Medical Doctors practicing disciplines such as pathology and oncology. In addition to our diverse employee base, we are able to train AI models using our proprietary and expansive multimodal, de-identified dataset. We leverage our varied expertise and extensive resources to continuously monitor and review the statistical performance of the models used across our Platform to ensure performance and prevent degradation.

We describe below some of the core software applications that form part of our Platform, including examples where we have developed and deployed AI techniques.

External Facing Applications

We have two primary software applications that serve as interfaces for different markets and allow our customers to interact with our Platform. Hub is our clinical application for physicians and other healthcare providers and is used primarily in our Genomics product line as an end-to-end application for healthcare providers who use our NGS tests. Lens is our application for life sciences customers and other healthcare researchers, launched in May 2021. Lens is aligned with Insights, one of our products within Data, and allows users to identify, license, and ultimately analyze cohorts of data for research purposes. We typically enable our customers to access free or charge certain software applications (like Hub) and certain features of other applications (like Lens). However, in some cases we may charge for access to Lens when a customer is interested in some form of customization or access to Lens' full suite of capabilities.

Hub

Hub can be accessed on the web or through our mobile applications. Hub enables physicians and other providers to interact with our Platform, place orders for our laboratory tests, track them through the sequencing process, view results, and develop treatment plans using the other information Tempus makes available. Hub streamlines and automates what previously required a significant investment of both time and resources for those ordering and delivering genomic reports.

A physician's experience, through Hub, typically begins with our online ordering feature, which presents providers with Tempus' various test options and guides users through the ordering process. Once Tempus has processed an order and sequenced a specimen, Hub synthesizes information across our various tests, orders, and patients, and presents the information in a consumer-friendly interface. For example, Order Summary synthesizes information from various clinical orders, test results, and other information relevant to a patient's course of treatment. A typical patient might have multiple sequencing events over time. Hub visually presents all of a patient's results side-by-side, so a treating physician can comprehensively view how a patient's disease has changed over time, including in response to therapy. Hub also provides care teams a robust set of search and filtering tools so they can navigate our Platform. Physicians can use Hub to identify similarly situated patients or patient sub-groups, including by specific molecular alteration. Physicians can also export and download the resulting dataset for further analysis.

Hub offers additional functionality that goes beyond ordering and presenting clinical results. Our clinical trial system, for example, handles the complexities of matching patients to clinical trials, by synthesizing clinical and molecular data matched against inclusion and exclusion criteria for the trial. It even allows physicians to activate their point of care as a clinical trial site, if approved by the trial sponsor, in order to easily enroll patients who would otherwise not have access to experimental therapies. The proprietary features within Hub put powerful analytics in the hands of physicians, allowing them to pursue research opportunities using accessible molecular data, and explore immune insights such as HLA type, immune infiltrates and neoantigens. Finally, Time on Therapy provides physicians a view into the Tempus Precision Medicine Library, which includes the treatment paths of patients within our de-identified database who display similar molecular or phenotypic profiles to their own patients. These tools enable new patients to potentially benefit from the experience of those that came before.

One example of an AI model whose results are available within Hub, and which illustrates a typical development and validation process for our AI models, is our tumor origin, or TO, algorithm. Our TO algorithm predicts the site of origin for cancer patients whose primary tumor site is unknown using machine learning models trained on tumor RNA expression results from our de-identified multimodal database. We began developing our TO algorithm in 2019, and it was first deployed in a clinical setting in 2021. We developed and trained the TO algorithm, like other machine learning models, by adopting current best practices for AI model development. For example, in developing the TO algorithm, we explored distinct model architectures (logistic regression, random forests and neural networks) and feature selection methods, and we utilized multiple cross validation techniques using both our own and independent third-party datasets. After its launch, we continue to monitor the performance of the TO algorithm by using advanced statistical methods to detect potential model drift or degradation over time. Each TO prediction is reviewed by our board certified pathologists for consistency with underlying data, and the distribution of expected cases is reviewed and assessed against the expected distribution of diagnoses.

We include below some illustrations depicting some of Hub’s capabilities:

T

New Order

INSTITUTION & PHYSICIAN

PATIENT

DIAGNOSIS & TESTING

SPECIMEN RETRIEVAL

BILLING

ADDITIONAL DETAILS

DOCUMENTS & NOTES

Save draft

Submit order

☒ xT Targeted Panel of 540 genes

Panel selection*

Normal specimen type

xT Conversion preference

Solid Tumor + Normal

Blood

Derivatization to xT

Additional test options

MC

APM

☐ PDL1-22TC3

☒ HRD

☐ PDL1-SP142

☐ TD

☐ PDL1-28-8

☒ DPD

☐ MMR

☒ UGT1A1

☒ xF Liquid Biopsy (Targeted Panel of 85 genes)

Panel selection*

Normal specimen type

Ask me a question about...

ONLINE ORDERING

Online ordering guides users through the ordering process allowing them to discover new test options relevant to their patient.

Marcella Baxter

Order 1 of 1

xT, vR #2360001 | Oct 24, 2023

TESTS DONE

Order Summary

Order Details

PDF Summary

☒ xT

Nov 5, 2023 - COMPLETE

☒ RNA expression

IN PROGRESS

☒ xR

IN PROGRESS

Tumor Samples

☒ xT Tissue (CEX-02105, 1x)

843246000

☒ xT Tumor

AWAITING SAMPLE

Trials

Search: Aud | Clear

Indication: Solid tumor, Breast cancer, Eye... >

Audii Priority-7 (TSS008)

Learn more

Basket Trial of Entrectinib in Patients With Malignant Solid Tumors With Pathogenic Alterations in TSC1/ TSC2 Genes (Priority 7)

Cohort 1

ACTIVE

Indication: Solid tumor

Biomarkers: TSC1

Phase: I, II

Agent: Entrectinib, AKAT inhibitor

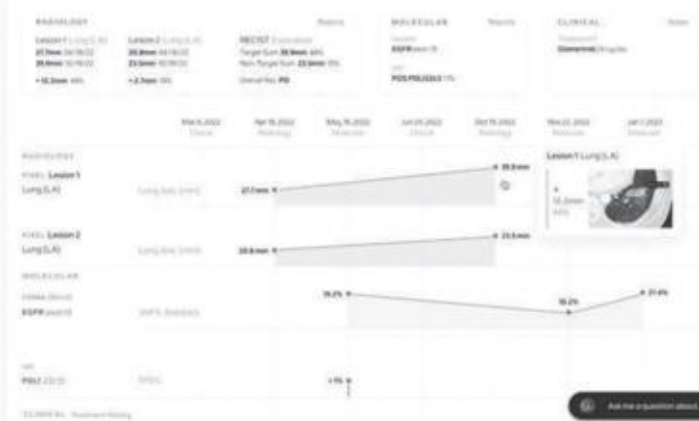
Line of therapy: 2nd+

MOBILE APPLICATION

The Tempus mobile application gives users access to the full Tempus experience, even when they are away from their computers. Reports are rendered in interactive views optimized for mobile devices. Physicians can help their patients enroll in trials using their phone.

14

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PATIENT SUMMARY

The patient summary interface surfaces all data about a patient in one place. Physicians can see detailed info about orders, such as the estimated delivery date. They can place orders on hold or convert them from solid tumor sequencing to a liquid biopsy. Completed results are summarized in a longitudinal view across orders.

T

Add patient

Download

Total Type Interventions: 4

Priority	Issue	Monitoring	Enrolled	Inactive
----------	-------	------------	----------	----------

PATIENT	Trial	Biomarker	Status	Next Visit	Notes
Roy Brewer 01/10/1988	<i>Jessen EDI</i>	PTEN	MONITORING	11/25/2023 <i>Scan</i>	
Sarah Henry 02/15/1982	<i>AstraZeneca SERENITY-4</i>	PIK3CA	MONITORING	11/28/2023 <i>Blood draw</i>	
Emelia Lee 05/02/1975	<i>Janssen Mariposa J</i>	BRCA2	FUTURE POTENTIAL	12/14/2023 <i>Prevalence visit</i>	

CLINICAL TRIALS

Tempus handles the complexities of clinical trial matching via Hub. A user can help their patient enroll in a clinical trial with minimal keystrokes.

T

Farrokh Rastegar

Order Progress

NEXT STEP

View Order Summary

TEST DETAILS

Order 2366666 - v1 948 gene panel, PD-(L1/22C3)HC (Ordered Oct 15, 2023)
 Order 2366666 - v1 948 gene panel, PD-(L1/22C3)HC (Ordered Oct 15, 2023)

ORDER DETAILS

Download order invitation

TUMOR SAMPLES

CT	Collected	Received	Download
	Oct 15, 2023	Oct 15, 2023	Download

CT	Collected	Received	Download
	Oct 15, 2023	Oct 15, 2023	Download

ADJUVANT SAMPLES

CT	Collected	Received	Download
	Oct 15, 2023	Oct 15, 2023	Download

TEST TRACKING

v1 948 gene panel (Delivered Oct 15, 2023) [View Report](#) [Download](#)



Ask me a question about...

ORDER SUMMARY

Order summary brings the important findings from a patient's order into a single, easily referenced document. It also allows Tempus to deliver insights from the broader Precision Medicine Library that are specifically matched to the patient case under review.

T

Time on Therapy

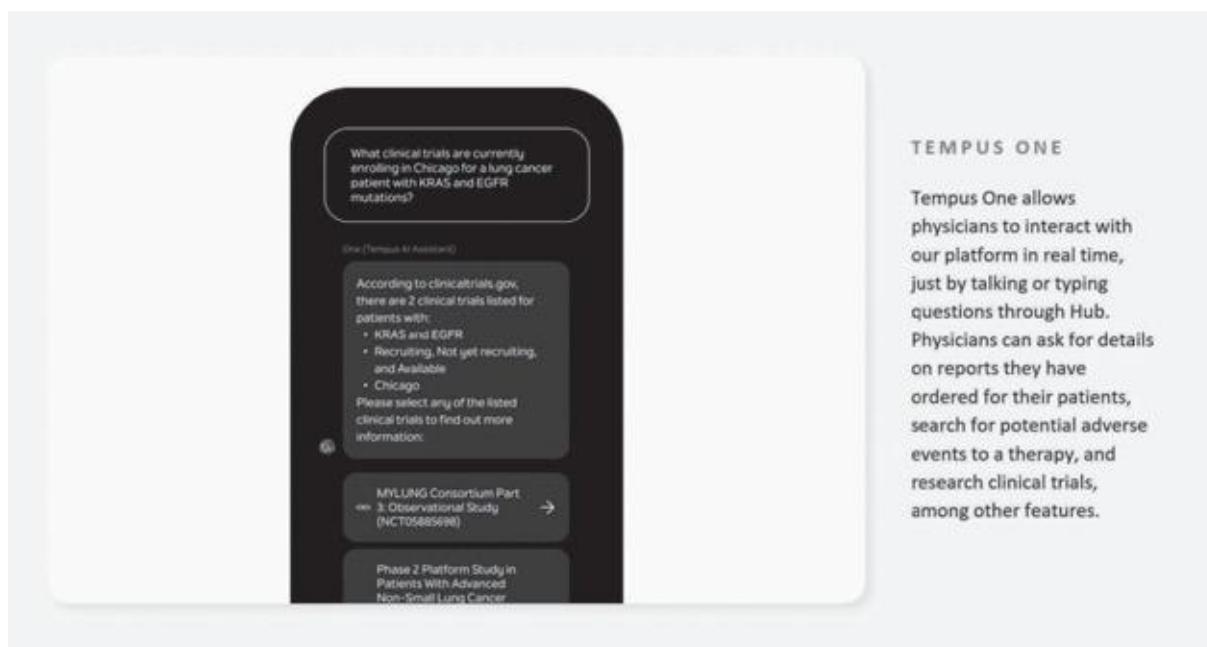
Patients who took Pembrolizumab



Ask me a question about...

TIME ON THERAPY

Time on Therapy allows physicians to compare their patient with thousands of similar patients in the Tempus Precision Medicine Library, enabling a deeper understanding of the effectiveness of particular therapeutic regimens.



TEMPUS ONE

Tempus One allows physicians to interact with our platform in real time, just by talking or typing questions through Hub. Physicians can ask for details on reports they have ordered for their patients, search for potential adverse events to a therapy, and research clinical trials, among other features.

Lens

Lens is our software application for life sciences and advanced precision research. We designed Lens to expose our multimodal, de-identified dataset to two main constituencies: (i) clinicians interested in exploring data related both to their own patients and to similarly situated patients from the broader Tempus dataset, and (ii) pharmaceutical and biotechnology clients that are focused on drug discovery and development and want to explore our dataset and/or supplement their own analytics with our tools and data.

For clinicians, Lens helps users filter our multimodal database to identify groups of patients that meet their research requirements. It allows browsing, segmenting, selecting, and analyzing cohorts of patients using a variety of clinical, molecular, and demographic characteristics. We generally make these aspects of Lens available to our customers without charge because such access helps our customers identify data cohorts of interest and facilitates data licensing opportunities.

In addition to this basic functionality, Lens allows advanced computational users to perform robust analytics using our cloud-and-compute infrastructure and modeling tool set. We launched certain of these advanced features in May 2021, one of which is called Notebooks, a proprietary tool that allows users to run their own AI models within our cloud-and-compute environment, taking advantage of fast and streamlined access to our data and computational infrastructure, and saving researchers time and money. Over time, we intend to enter into separate subscription agreements, and charge separately, for expanded access to Lens and the increased functionality we intend to provide to our users.

We believe that as Lens evolves, it has the potential to redefine life sciences research as investigators can both use our tools for their computational needs and instantly download the data they need for their analysis. We are not aware of any other application in oncology, or any other major disease area, that allows researchers to build large multimodal cohorts, utilize advanced analytics capabilities to explore the data, and download data for deeper analysis in near real time.

We include below some illustrations depicting some of Lens' current capabilities, which we expect to continue to expand and enhance over time:

T

Advanced Filters

ANALYST ☒ Clinical ☒ DNA ☐ RNA ☐ Pathology

193,887

FILTER BY

Primary Diagnosis: Head and Neck Squamous Cell Carcinoma(2)

3,643

Molecular Tests: Biomarker: EGFR

345

FILTER BY

Curated NGS Tests: Gene: EGFR

26 patients

FILTER BY

Regimen: Abiraterone or Abiraterone, Bicalutamide or Abiraterone, Bicalutamide, Drug, Leuprolide or Abiraterone, Bicalutamide, Leuprolide or Abiraterone, Cyclophosphamide, Fluorouracil or Abiraterone, Leucovorin, Oxaliplatin

26 patients

Search for keywords (eg EGFR)

Ask me a question about...

ADVANCED FILTERS

Advanced filters empower users to define and refine a subset of the full dataset based on precise clinical and molecular characteristics, and/or the availability of specific data (e.g. DNA results, RNA, or imaging).

T

Cohort Design

Table | Data Summary | Data Enrollment

Line of Therapy | Treatment

100% 62% 44% 29% 9%

50% 41% 27% 22% 14% 43%

Before Cohort 1st Line 2nd Line 3rd Line 4th Line +

Institution | Institutions

Search

Institution % of query # of patients

Memorial Sloan-Kettering 100% 1

Albert Einstein 43% 9

Somatic Variant Genes | Treatment Molecular

Search

Somatic Variant Genes % of query # of patients

CDKN2A 100.00% 98

MDM1 100.00% 98

TP53 99.82% 94

BRCA1 99.82% 92

BRCA2 99.82% 91

NOTCH1 99.82% 91

LTP1 99.82% 91

APC 99.82% 90

ATM 99.82% 90

NOTCH2 99.82% 91

Regimen | Treatment

Search

Regimen % of query # of patients

Metastatic 21.5% 12

Curative 10.4% 7

Preventive 1.1% 1

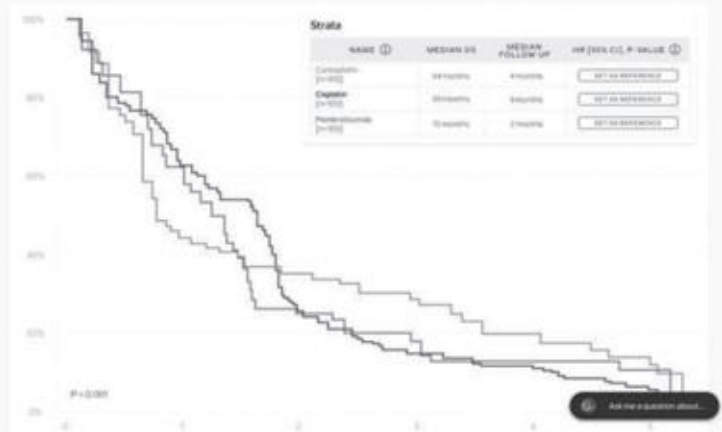
COHORT DESIGN

Researchers can quickly build cohorts of interest and explore the unique data elements of the cohort they have designed. This allows researchers to ascertain if their cohort is sufficient for the questions they are trying to answer and the studies they are trying to conduct.

18

T

Survival Analysis



EXPLORATORY TOOLS

Physicians and researchers can use Lens to conduct complex analytics, including the exploration of why certain patients are having a positive, or negative response to therapy via purpose-built tools such as Time on Treatment.

T

Notebook in Workspaces



NOTEBOOKS

More advanced users can utilize Notebooks, which is a proprietary tool that allows the development of self-generated models within Tempus' cloud and compute environment, taking advantage of streamlined access to our data and computational infrastructure, and saving researchers time and money.

Other Software Applications

Our software applications extend beyond the oncology space. In the neuropsychiatry space, for example, we have built a series of proprietary and customized applications that are oriented around depression and other related psychiatric conditions. In addition, we licensed a customized software tool, which we call TempusPRO, that helps track patient reported outcomes, which we integrate into Hub. Patients use the mobile application to complete regular and systematic check-ins, while providers use the tool to view clinical reports and review the patient reported information. We have developed this application to empower providers to make data-driven, personalized treatment decisions, as well as collect outcome measurements on a regular, longitudinal basis in an effort to build one of the largest real-world multimodal datasets in psychiatry.

Our Three Product Lines

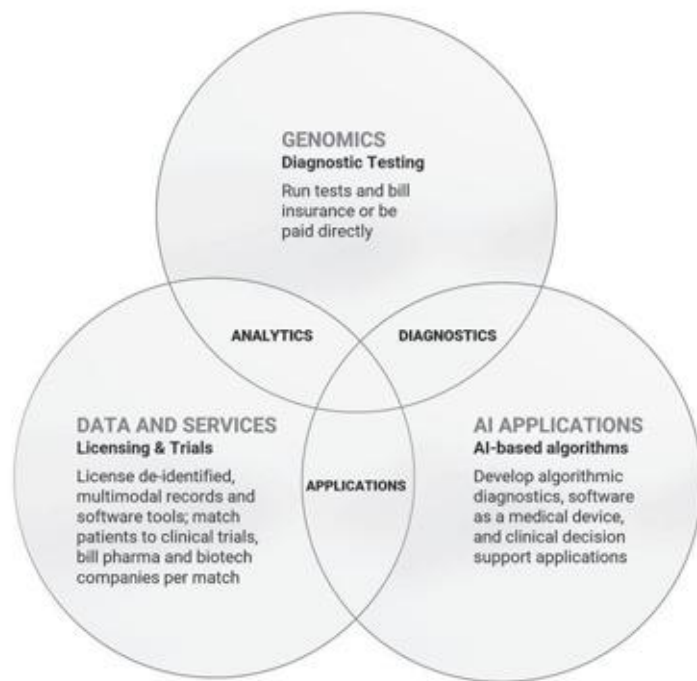
Our products are organized under three product lines, with each product line designed to enable and enhance the others, thereby creating network effects in the markets in which we operate. Our Genomics product line provides a broad range of diagnostic testing services to healthcare providers. Our Data and Services product line monetizes de-identified data that we collect and facilitates enrollment in clinical trials, and which at scale has allowed us to provide a series of data related services to our life sciences customers, such as clinical trial matching. Our AI Applications product line leverages our database to provide diagnostics entirely driven by data, which helps route patients to the optimal therapy and advance research more broadly.

Our three product lines and their corresponding product offerings are illustrated in the diagram below:

Tempus’ three product lines

We started in cancer bringing AI to diagnostics through the real-time personalization of genomic tests.

Our Platform supports our three product lines, with each designed to enable and enhance the others, thereby translating the network effects of our technology into the markets in which we operate and allowing us to monetize our products, and the resulting data we collect, in multiple ways.



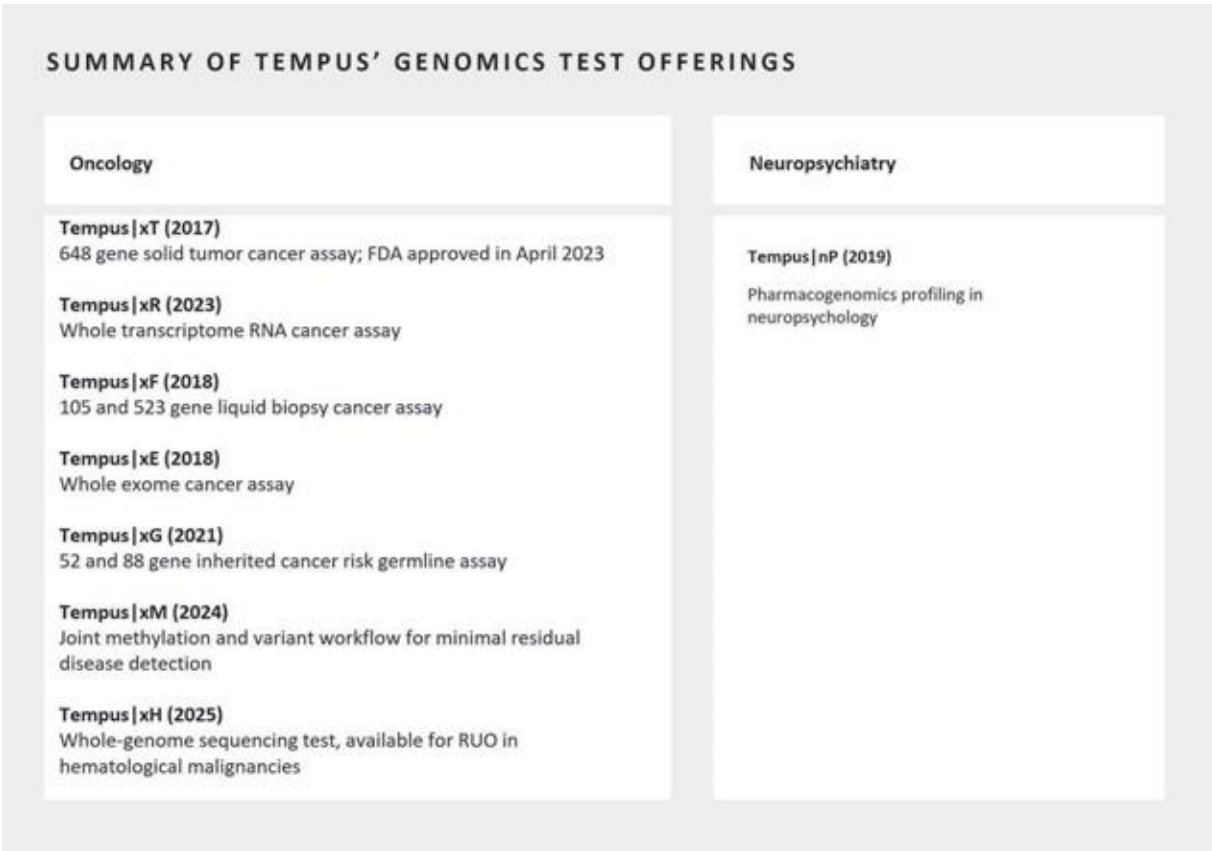
We believe the interrelated nature of our three product lines is unique. Our business model allows our clients to unlock value from our data, and allows us to monetize that data (in de-identified format), in different ways across our different product lines. We believe these network effects and the compounding impact on the value of each data record in our database enhance our competitive advantage. The more data we collect, the smarter our tests become, the more applications we can launch, the more physicians join our network, further growing our database, making our tests smarter for clinicians and our database more valuable for researchers.

Genomics

We launched our Genomics product line to provide a comprehensive suite of Intelligent Diagnostics to healthcare providers, and to generate a steady stream of molecular data to help fuel growth in our Data and AI Applications product lines. As we run more tests through our laboratories, and as those tests are linked to patient records and clinical outcomes, we

grow our data assets and leverage them across our other product lines. We operate three laboratories that provide NGS diagnostics, PCR profiling, and other anatomic and molecular pathology tests. We have broad capabilities across genomic, transcriptomic, proteomic, microbiomic, epigenetic, and methylation-based assays, and our laboratory infrastructure allows us to operate as a high-quality, low-cost NGS provider broadly serving the market. However, unlike other laboratory diagnostic testing providers, many of our tests are connected to clinical data, in some manner, which allows our suite of tests to be self-learning, becoming more accurate and precise with each new test that we run. Furthermore, rather than providing a result based on a single data modality, such as a DNA mutation, our Platform leverages data from other modalities and other patients in an effort to be more comprehensive.

We are generally paid for our Genomics services by billing insurance companies, or patients directly, who reimburse us for the tests we run, or by billing providers or pharmaceutical companies directly. The following diagram represents a summary of our test offerings as of December 31, 2024:



Our Oncology Tests

Our Platform’s first application was in oncology, where we have built a versatile portfolio of cancer tests spanning solid tumors and hematologic malignancies, germline and somatic variants, and tissue and liquid biopsies. Since our inception, our approach to precision oncology has been to provide comprehensive genomic profiling through NGS that enables us to both generate clinically relevant insights that may not be possible with narrower testing approaches, and contribute high-quality molecular information back to providers and to our database. We offer large-panel solid tumor and hematologic testing through multiple assays, with our core clinical assay (xT and xR) offering large panel DNA, RNA full transcriptome, and incidental germline findings through normal blood or saliva analyses. Our current offerings also include liquid biopsy (xF), whole exome (xE), and hereditary cancer risk (xG). With our acquisition of Ambry in February 2025, we believe we have an opportunity to further expand and enhance our inherited risk screening capabilities for cancer patients. We are also currently validating a treatment response monitoring assay. Our oncology tests are differentiated not only because of their breadth, but also because in many cases they are connected to clinical data, which allows us to account for the drugs the patient took historically, how they responded, and for which clinical trials they are actually eligible. We endeavor to not recommend drugs for which a patient has been previously prescribed in a prior line of therapy and failed, and not recommend clinical trials they are not eligible to participate in, based on the inclusion or exclusion criteria of the trial.

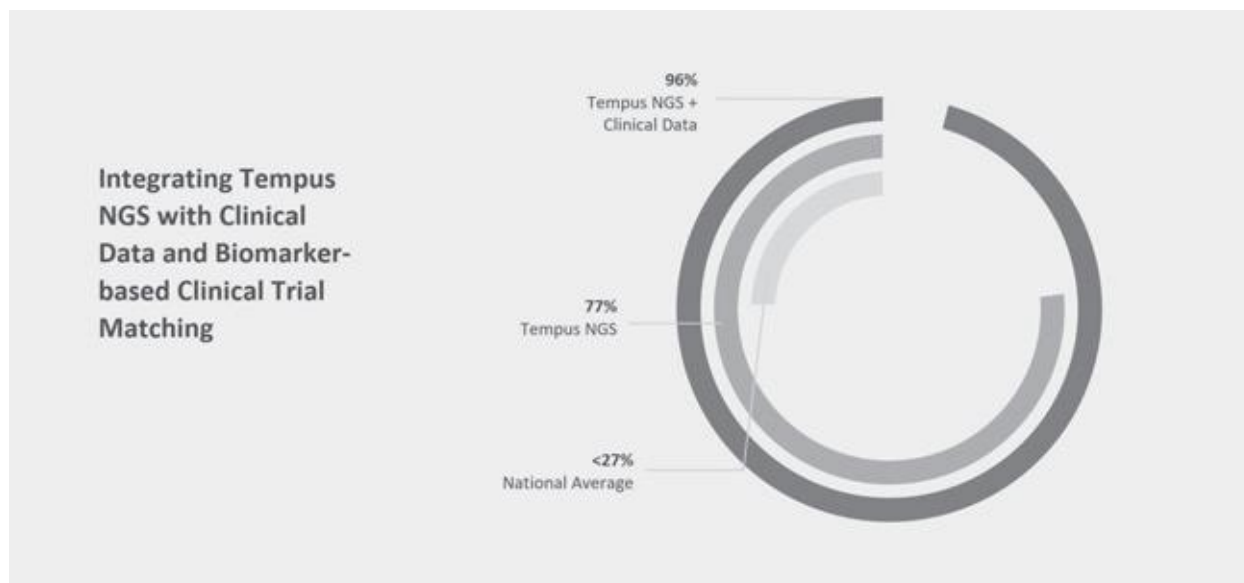
The following table lists our current oncology test offerings:

Lab Tests Oncology tests	Launch Year	Description
Tempus xT	2017	- Designed to detect actionable oncologic targets by sequencing tumor tissue samples - Typically associated with incidental germline testing for matched normal saliva or blood samples, when available - Fourth generation test that covers 648 genes at 500x coverage spanning approximately 3.6 Mb of genomic space - Includes full TCR, BCR, and HLA typing for immuno- oncology, or IO, signatures - Detects TMB, MSI, and fusions - The test has an approximately 10-day quoted turnaround time. - In our analytical validation, we demonstrated sensitivities >98% for SNVs, >92% for rearrangements / fusions, >92% for CNVs and indels, and 99.9% for MSI. - Premarket approval (PMA) obtained from the FDA in April 2023
Tempus xE	2018	- Awarded Advanced Diagnostic Laboratory Test (ADLT) status - A whole exome cancer assay designed to identify actionable oncologic variants as well as neoantigens across the exome from tissue samples, thus enabling IO applications - Run at ~150-250x media coverage for approximately 650 of the most significant onco-driving mutations and ~150-200x median coverage for more than 19,000 genes on the panel
Tempus xF	2018	- Detects TMB, MSI, and fusions - Next-generation liquid biopsy assay covering 105 genes at approximately 20,000x coverage from peripheral blood samples for solid tumors - Typically used for oncogenic and resistance mutations that can be detected in cell free DNA, or cfDNA, from a peripheral blood draw - In our analytical validation, for 0.5% VAF and 30ng of DNA, we demonstrated >99.9% sensitivity for SNVs, 98.8% for indels, >99.9% for CNVs, and 97.4% for rearrangements and fusions. xF also demonstrated 100% sensitivity concordance with Roche AVENIO ctDNA Expanded Kit for indels, CNVs, and rearrangements. We also demonstrated >99.9% specificity for SNVs, indels, and fusions, and 96.2% specificity for CNVs
Tempus xG	2021	- The xF+ version is a 523 gene panel that includes bTMB, MSI, additional fusions and CNVs 52 gene inherited cancer germline panel run off whole exome platform at 75x depth of coverage - Tests hereditary predisposition across common and well- described cancer syndromes such as breast, ovarian, prostate cancer (BRCA1, BRCA2), pancreatic cancer (CDKN2A, PALB2), colorectal cancer (APC, BMPR1A), and Lynch Syndrome (MLH1, MSH2, MSH6, PMS2, EPCAM) - Typically used in patients with a personal and / or family history suggestive of hereditary predisposition to cancer and can guide future diagnostic decisions - The xG+ version is an 88 gene panel covering genes associated with both

Lab Tests	Launch Year	Description
Tempus xR	2023	common and rare hereditary cancers • Full transcriptomic profiling assay for solid tumors and hematologic malignancies at 50 million paired end reads, offered as a separate test as of January 2023 (previous paired with xT and xE) • Reports clinically relevant fusions for more than 100 targeted genes, as well as altered splicing events for MET exon 14 and EGFRvIII, in an unbiased and comprehensive manner • 43.4% of patients were matched to a targeted therapy when DNA seq, RNA seq, and immune biomarker assessment were combined, compared to 29.6% of patients who had a therapy match using DNA seq alone • Among patients with identified fusions, 29% more patients were identified with a unique clinically actionable fusion that could be matched to a targeted therapy when RNA seq was incorporated, compared to DNA seq alone • The test has an approximately 10-day quoted turnaround time

We launched xM, a high coverage methylation sequencing assay for monitoring for cancer recurrence and minimal residual disease on June 1, 2024, initially covering colorectal cancer with the potential to expand into additional indications. In November 2023, we entered into a Commercialization and Reference Laboratory Agreement with Personalis, Inc., or Personalis, pursuant to which we began marketing Personalis' Personal Dx test in the United States initially in non-small cell lung cancer and breast cancer, as well as IO treatment response monitoring. Personalis will conduct additional development activities to further analytically validate the test in other indications. Personalis will perform tests ordered by patients through us and will bill such patients or payers.

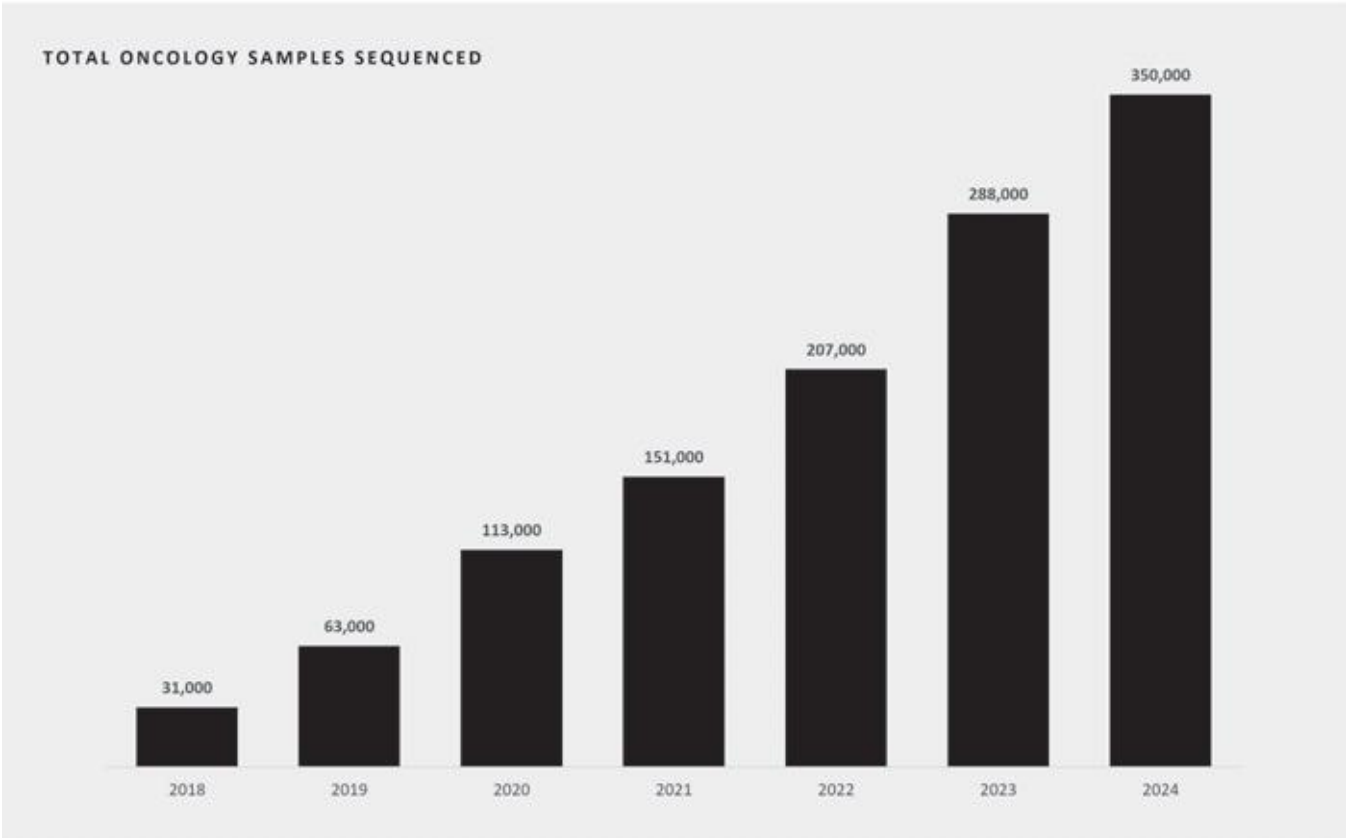
We believe incorporating clinical data in our diagnostic tests has widespread benefits. For example, combining clinical and molecular data resulted in improved therapy matching for patients in a study that we conducted, the results of which were published in Nature Bio in September 2019. In that study, using our sequencing results and matched clinical data from 500 patient samples across a range of tumor types, we observed that 96% of patients could be matched to at least one clinical trial. Approximately 77% of patients were matched to at least one clinical trial based on a gene variant. Of the patients who were not matched to a biomarker-based clinical trial, 19.4% were matched to at least one disease-based clinical trial from clinical data alone.



The results of the Nature Bio study indicated that paired tumor-normal DNA-seq and RNA profiling of patient cancer biopsies yielded high match rates to targeted therapies and clinical trials, and also underscored the value of integrating and contextualizing clinical and molecular data to provide physicians with distilled information regarding their patients’ disease and potentially actionable characteristics. In sum, our Platform demonstrated an ability to help maximize personalized therapeutic options for a broader proportion of patients with cancer, which typically cannot be attained through smaller tumor-only DNA-seq panels.

In addition, in a paper we published in Nature Precision Oncology in July 2021, we highlighted the benefits of performing both solid tumor and liquid biopsy profiling. We observed that the concordance of the results of tissue sequencing and liquid testing, even when concurrently profiled, was approximately 70% at most, with both liquid testing and tissue sequencing missing a selected number of potentially actionable mutations. Yet when both are performed, as Tempus often does, the coverage of potentially actionable mutations increases.

We believe the market is recognizing the value of our products and their benefits, as they relate to sequencing both somatic and germline variants, running both solid tumor and liquid biopsies, broadly sequencing RNA in addition to DNA, making available raw files and structured clinical data, and matching the results to clinical data for the patient sequenced. As a result, our clinical volume in oncology rose from approximately 31,000 samples sequenced in 2018 to approximately 350,000 samples in 2024.



Our Neuropsychiatry Tests

We entered neuropsychiatry in 2019. We currently offer our proprietary nP assay for pharmacogenomic testing for patients with psychiatric conditions, such as depression, general anxiety disorder, bipolar disorder, and other relevant diagnoses. Despite the growing prevalence of depression and anxiety, their treatment remains largely the same as it has been for decades. Today, there are dozens of antidepressants that are often prescribed based on trial and error, where psychiatrists alter the dose and class of medications when one fails to work. The difficulties in prescribing medications leads many patients to take the wrong medications, in the wrong dose. Emerging evidence demonstrates that there are molecular mechanisms that suggest one drug, or class of drugs, may work better than another based on the genetic profile of the patient, and our assay is designed to elucidate these differences. The following table describes our nP assay.

Tempus nP	2019	• Pharmacogenomic profiling for patients with psychiatric conditions; primarily used for depression • Covers 13 validated genes with known roles in pharmacokinetics, pharmacodynamics, and immune response to FDA approved medications that may be prescribed in the neuropsychiatric space • Uses matrix-assisted laser desorption ionization-time of flight (MALDI-TOF) mass spectrometry to analyze 80 single nucleotide and small insertion-deletion (indel) variants in the 13 genes. Concurrently, DNA fragment analysis is used to analyze copy number variants in CYP2D6 and a large indel in the SLC6A4 promoter
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In an effort to bring AI to this field, we are not only performing pharmacogenomic profiling, we also regularly collect two additional data modalities: (i) time on therapy data from the patient’s EHR (or directly from the ordering physician), and (ii) patient reported outcome, or PRO, data through our TempusPRO mobile application.

TempusPRO is our patient-facing mobile application that collects PRO measurements on a longitudinal basis. We are also capturing passive lifestyle measurements through mobile sensory devices, such as daily steps and minutes spent exercising. These measurements serve as a quantitative, unbiased backbone to the more qualitative and subjective measures that are commonplace in psychiatry. As we continue to advance the field of psychiatric medicine, we believe our Platform is well suited to extend to additional neurological conditions beyond depression, anxiety, and bipolar disorder.

Data and Services

Our Data and Services product line facilitates drug discovery and development for life sciences companies through two primary products: Insights and Trials. We also maintain a growing tumor-derived biological modeling (or organoid) laboratory, which allows us to provide modeling and screening services to our pharmaceutical and biotech clients.

One way we measure our data business is based on the remaining total contract value, or the Remaining TCV, that is contractually committed to be delivered in the future. As of December 31, 2024, we have signed contracts with a Remaining TCV of more than \$940.0 million, which includes approximately \$300.0 million in additional potential future contractual opt-ins. Remaining TCV is equal to the total potential value of signed contracts and assumes the exercise of all contract options, all discretionary opt-ins, and no early termination. Remaining TCV includes the total potential value of the company’s strategic collaborations with AstraZeneca AB, or AstraZeneca, and GlaxoSmithKline, or GSK, which, although listed under the Data and Services product line, could be satisfied by the purchase of any of the company’s products and services. Remaining TCV excludes any revenue recognized to date on these contracts or any future adjustments made to the contractual value as a result of amendments or terminations. Our agreements contain termination clauses, including the ability of our counterparty to terminate for convenience, and there can be no guarantee that contracts will not be terminated, that contractual options and discretionary opt-ins will be exercised, or that we will achieve the full amount of potential revenue represented by these contracts. Remaining TCV is not a calculation of revenue and should be viewed independently of revenue and deferred revenue, as Remaining TCV is not intended to be combined with or replace these items. Similarly, Remaining TCV is not a forecast of future revenue, which can be impacted by, among other things, contract start and end dates, our ability to meet performance obligations, and the exercise of contractual options or termination rights. Moreover, Remaining TCV may differ from similarly titled metrics presented by other companies and may not be comparable to such other metrics.

Insights

Historically, the primary means for pharmaceutical and biotechnology companies to build a dataset for drug discovery and development was to run a preclinical study or clinical trial, and to leverage limited datasets such as medical claims data. We believe Tempus is changing the existing paradigm. We launched our Insights product to allow researchers to access large amounts of multimodal healthcare data that historically did not exist at scale in a single consolidated database. We have amassed a large connected dataset, which we organize in near-real time across multiple modalities and multiple disease areas, allowing us to work with pharmaceutical and biotechnology companies across the drug lifecycle—from discovery, research and development, and, ultimately, commercialization.

For our Insights offering, we license libraries of linked, de-identified clinical, molecular, and imaging data, and provide a suite of analytic and cloud-and-compute tools for discovery, research, development, and other commercial purposes. Our primary customers are pharmaceutical and biotechnology companies. These customers either pay us on a per file basis or through multi-year data licensing agreements to use our de-identified patient database. We currently work with 19 of the 20 largest public pharmaceutical companies based on 2023 revenue.

We believe we offer a unique value proposition to the industry as a cost-effective source of high-quality and comprehensive data on targeted patient populations. Our data is useful across the oncology drug development value chain, and our biotechnology and pharmaceutical customers are using the data to inform decisions in a variety of discovery and development applications, selected below. One metric that illustrates the utility of our data to our customers is “Net Revenue Retention.” Net Revenue Retention compares the annual Insights product revenue generated from all customers that made an Insights purchase in one year to the annual Insights product revenue generated from the same cohort of customers in the subsequent year. Net Revenue Retention is not a calculation of revenue and should be viewed independently of revenue and deferred revenue, as Net Revenue Retention is not intended to be combined with or replace these items. Similarly, Net Revenue Retention is not a forecast of future revenue. Moreover, Net Revenue Retention may differ from similarly titled metrics presented by other companies and may not be comparable to such other metrics. For the year ended December 31, 2024, Net Revenue Retention was approximately 140% compared to the same cohort of customers for the period ended December 31, 2023.

SELECTED DATA APPLICATIONS		
Biomarker Discovery	Clinical Development	Commercialization
Select indications based on biomarker expression Discover novel biomarkers with RNA pathway enrichment scores	Identify combination therapies by correlating response to biomarker status Assess trial feasibility by analyzing impact of inclusion/exclusion criteria	Identify patient populations via assessment of the mutational landscape Identify prognostic indicators with treatment & outcomes data

To illustrate an example of how our data can be applied, in December 2020, we published a peer-reviewed study in ScienceDirect in which we analyzed longitudinal real-world data, or RWD, from a large cohort of patients with breast cancer (n = 4,000) to test whether results were consistent with previous clinical studies and to demonstrate the real-world evidence validity of our database. We also evaluated whole-transcriptome sequencing as a complementary diagnostic tool (n = 400). The conclusions of the study demonstrated that our database mirrored the overall population of patients with breast cancer in the United States, and that near real-time, RWD analyses are feasible in a large, highly heterogeneous database. Furthermore, the study demonstrated that molecular data may aid deficiencies and discrepancies observed from breast cancer clinical RWD.

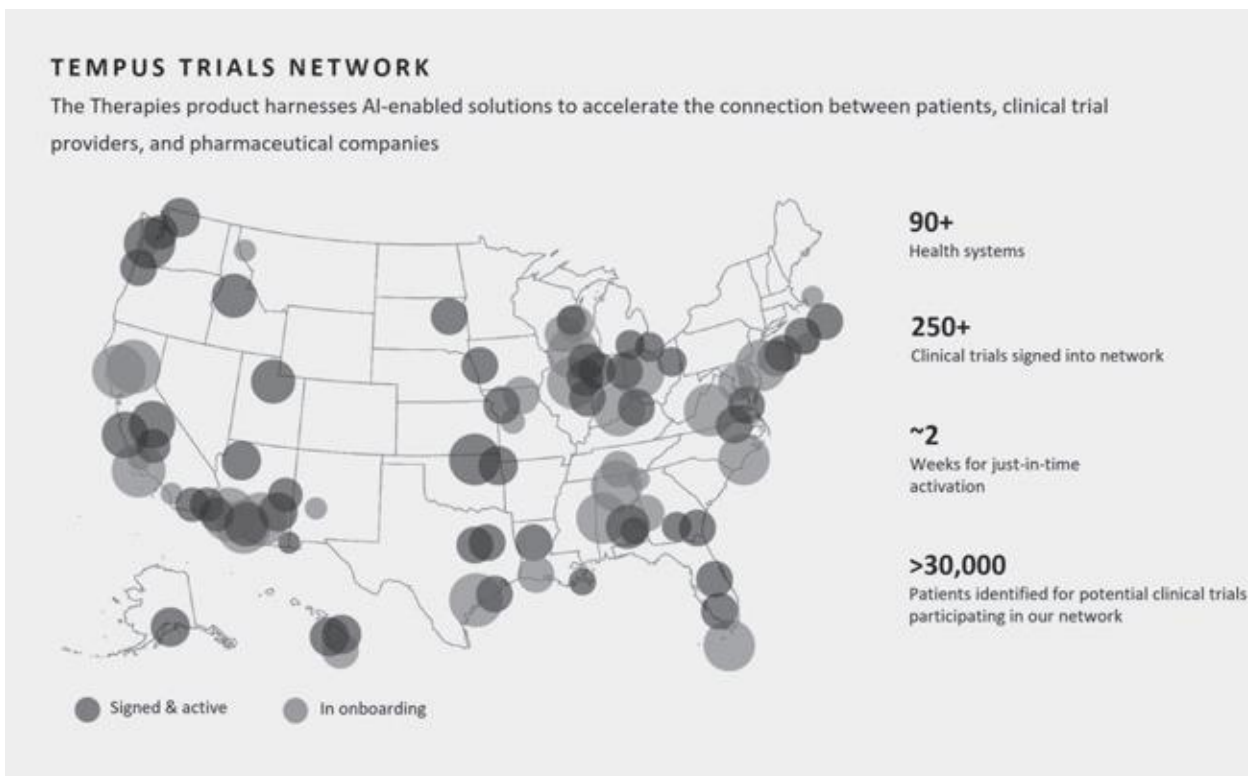
Because many of our data profiles regularly update with clinical outcome and response data over time, the utility of a single de-identified record may increase over time. As such, the files we generate by sequencing a patient, when connected to clinical data, are valuable to pharmaceutical and biotechnology companies, as they not only allow users to gain molecular insight into what is happening among cohorts of patients, but they also allow users to track those cohorts over time. As a result, our files behave as if they have a “lifetime value” that has the potential to increase over time, in a manner similar to a content company where you pay to create content and then monetize the content over time as people subscribe to access the content.

Trials

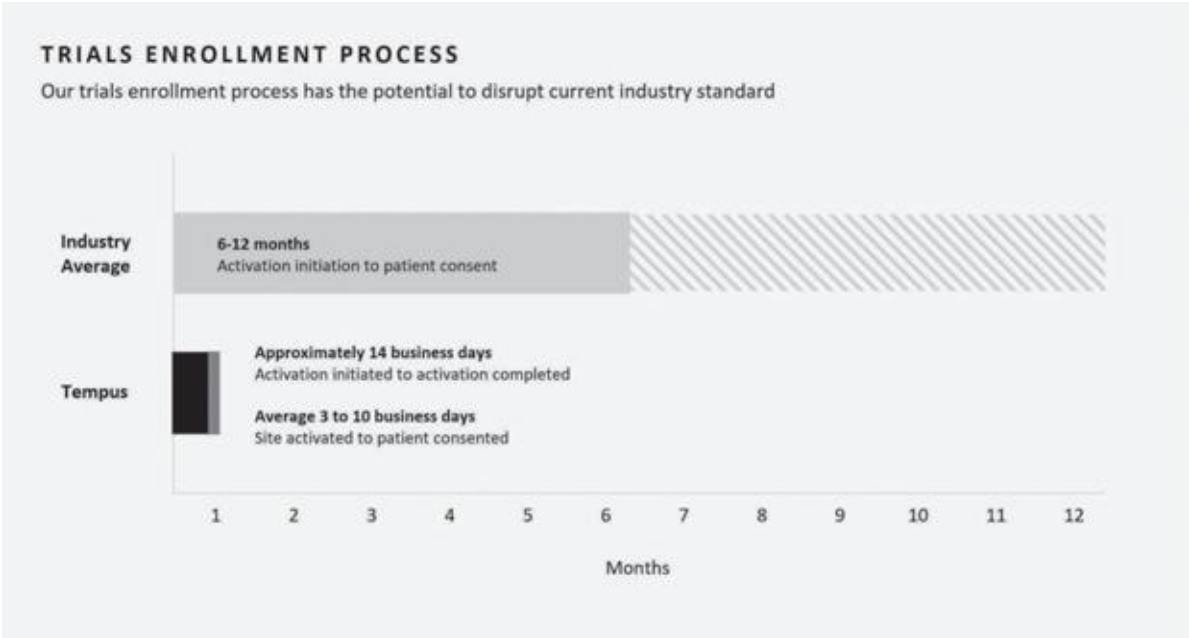
Trials is our second offering within our Data and Services product line and leverages our broad network of physicians we work with in oncology to provide clinical trial matching services for pharmaceutical companies trying to reach hard-to-find and underserved patient populations. Our clinical trial matching product is built on top of our near real-time data feeds and harnesses AI to accelerate the connection between patients, clinical trial sites (hospitals) and clinical trial sponsors (life sciences companies). We empower both oncologists to help their patients find clinical trials and pharmaceutical companies to enroll patients into their trials. We generate revenue from both matching the patient to the trial (through notices we send to physicians alerting them of potential trials that are a fit for their patients), and from the patient actually enrolling in the trial.

Our Trials product is a bold initiative that we do not believe has been implemented at scale in the United States by any other organization. We are endeavoring to create a just-in-time network across a wide variety of academic medical centers and community providers, that can support hundreds or even thousands of trials, in which the administrative and logistical foundation is uniform across the entire network. This network allows us to identify a patient that is a match for a targeted trial and get that patient enrolled within days, even if the trial was not previously open at the hospital (assuming consent of the trial sponsor), anywhere in the United States. Prior to Tempus, we believe it would have been virtually impossible to even attempt to build this type of just-in-time program across oncology, as the required ingredients for success are unique to our Platform, namely: (i) a large genomic sequencing business that is widely adopted and allows for the identification of patients that are molecular matches to trials; (ii) the ability to structure clinical data for those patients in near real time to filter for inclusion and exclusion criteria; (iii) direct pipelines allowing data to be transferred to and from the laboratory and provider; and (iv) an analytic engine able to stratify patients and follow each unique patient journey ensuring that patients actually enroll in the studies.

Our clinical trial matching offering is called the TIME Trial® program, which we launched in June of 2019. Since its introduction, this program has gained significant traction with more than 250 clinical trials signed into the network. More than 30,000 patients were identified for potential enrollment into clinical trials in our network as of December 31, 2024. We believe the breadth of our network, the data to which we have near real-time access, and our relationships with oncologists enable us to offer a clinical trial matching service that has the potential to materially expand patient access to and accelerate enrollment in clinical trials in the United States.



One of the primary benefits of our Trials product is our ability to facilitate the initiation of a clinical trial in a new location in a short amount of time. Third-party research suggests that it takes 6-12 months, on average, to initiate a new trial site for an ongoing clinical trial in the United States. We have been able to substantially streamline this process by leveraging technology and introducing a standard methodology, with activation of new sites through our Trials product taking approximately two weeks on average in 2024. A comparison of our average time from site initiation to patient consent with the industry average is below:



In addition to TIME, we provide other clinical trial services and conduct our own studies as part of our Trials program, all with a goal of identifying new therapies and bringing them to market more efficiently. In January 2022, we acquired Highline Consulting, LLC, a contract research organization, or CRO, which we subsequently renamed Tempus Compass, LLC, or Tempus Compass. Tempus Compass manages and executes early and late-stage clinical trials, primarily in oncology. We also partner with life sciences companies to sponsor studies of drugs, devices, and diagnostics, integrating our life science solutions to help bring new drugs to market faster. Each of the products and services within our Trials program complement each other to create a suite of integrated solutions for life sciences companies from early discovery to commercialization.

Tumor Derived Biological Modeling—Organoids

In addition to our efforts to collect vast amounts of phenotypic, morphologic, and molecular data, we have built a large, biological modeling lab that allows us to test various theories in vitro through our large repository of tumor-derived Organoids, and to perform drug screening for our various life sciences clients. Many of our Organoids are fully characterized and sequenced using our NGS panels, providing genomic and transcriptomic data for our models, allowing us to explore various hypotheses that enhance our data. Examples of hypotheses we are able to test in our Organoid lab include: (i) which therapeutics are most effective; (ii) differential levels of drug response by tumor type, genomic profile, or other targeted attributes; (iii) discovery of RNA signatures; (iv) attributes of responders and non-responders; and (v) response rates in therapy-resistant models. We work with numerous collaborators including biotechnology companies, pharmaceutical companies, academic institutions, and government labs. Since 2017, we have scaled our sample collection efforts and have received approximately 4,100 tumor samples to date.

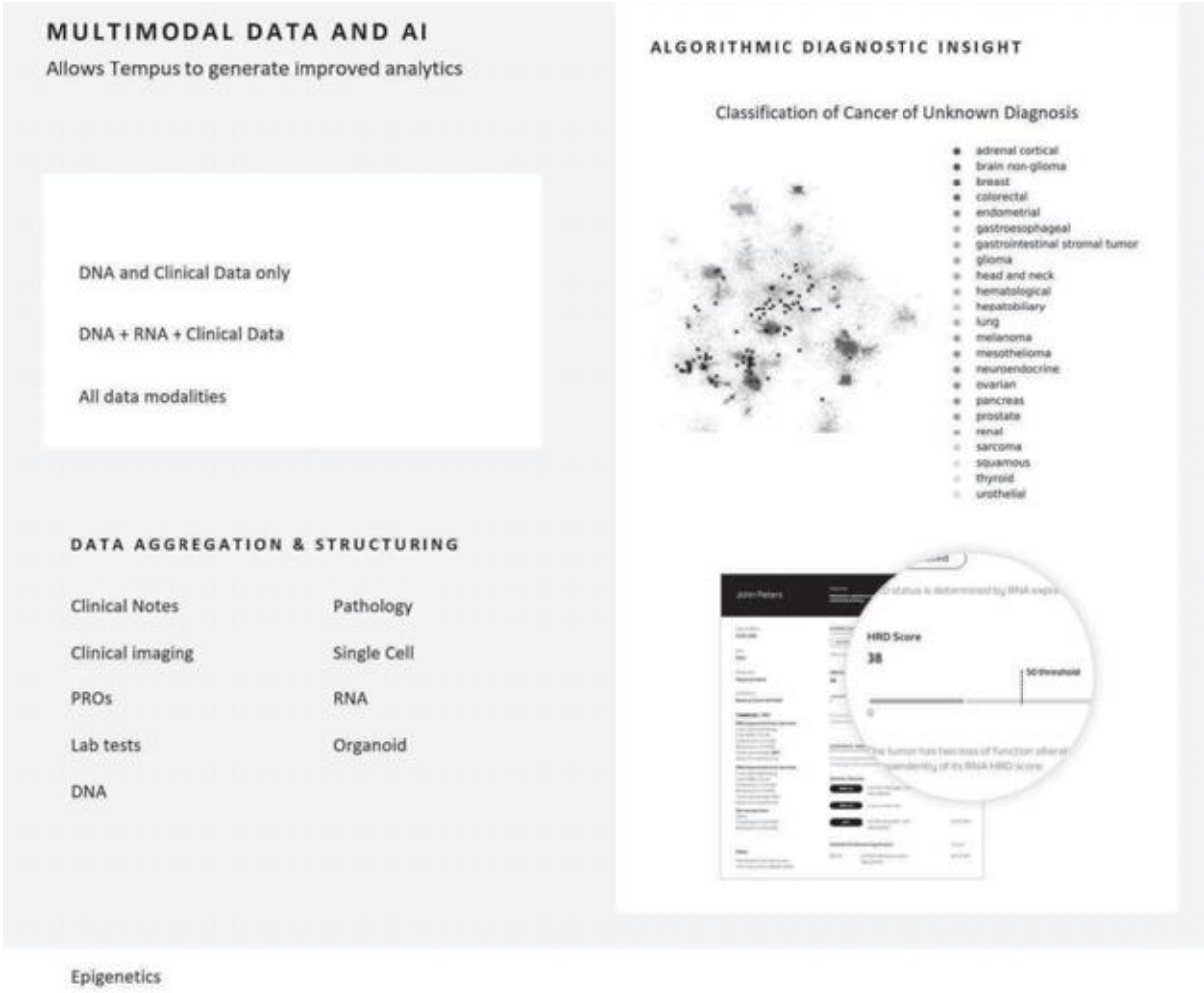
These samples cover a wide range of cancer subtypes, allowing us to work on comprehensive drug screening applications across multiple epithelial based tumor types, such as breast, lung, colorectal, and pancreatic. One of the goals of this screening is to predict a series of therapeutic responses in our Organoids and then test whether or not patients are experiencing similar responses in the clinical setting.

We view biological models as another form of data. Our efforts to grow Organoids are part of our overall strategy to leverage the best of systems biology along with the best of AI to collect the requisite data needed to produce answers broadly throughout healthcare.

AI Applications

The vastness of our dataset, along with our connected platform, creates an opportunity to use data to algorithmically diagnose and treat patients. Our third product line, AI Applications, or Algos, is focused on developing and providing diagnostics that are algorithmic in nature, implementing new software as a medical device, and building and deploying clinical decision support tools. The primary product of AI Applications is currently “Next,” an AI platform that leverages machine learning to apply an “intelligent layer” onto routinely generated data to proactively identify and minimize care gaps for oncology and cardiology patients. As this product gains adoption, we intend to leverage large language models, generative AI algorithms, and our vast database of de-identified data to develop algorithmic diagnostics designed to identify these patients earlier in their disease progression, when treatments are most effective. For example, algorithmic diagnostics that integrate multimodal data can be used to create a more accurate risk profile for patients, leading to improved outcomes and reduced cost. Our repository of multimodal data allows us to find associations and patterns that are largely invisible through a single data modality, but readily apparent when combined. In addition, we find the strength of our analytic models, and our ability to deploy them clinically, improves as we add additional datasets. While we plan to continue developing our own proprietary software and algorithms, from time to time, we also utilize open source technologies or in-license technologies from third parties.

The example diagram below represents how algorithm-based diagnostics work and the value of multimodal data as it relates to improved analytics:



Algorithm-based diagnostics are already being used in healthcare, but are not widespread. For example, algorithms exist today that leverage EHR data and lab results to predict early onset of hospital-borne infections, but these tools are still in the very early stages of adoption and validation. While Algos today represent only a small proportion of the diagnostics market, we expect their adoption to grow substantially in the future. We believe Algos represent a significant long-term opportunity that may be substantially larger than our other existing product lines. We believe our ability to launch Algos at scale is a key differentiator of our Platform.

Our Oncology Algos Portfolio

We believe our robust, multimodal dataset creates an opportunity for Algos that otherwise would not be possible and allows us to build AI models at scale, clinically validate them, and deploy the resulting Algos into clinical practice. We currently offer a suite of Algos in oncology, and have more in various stages of development. As of December 31, 2024, more than 80,000 molecular oncology Algos have been ordered with our various genomic assays. Most of the Algos we currently offer are part of our xR assay, and we do not bill separately for them. Some Algos will likely yield little to no reimbursement until their clinical utility is established or will be ordered separately with our existing NGS assays or diagnostics to enhance the actionable information for physicians, and some may obtain reimbursement at prevailing rates for comparable tests.

Algo	Launch Year	Description
Oncology		
Tumor Origin (“TO”) Test	2021	• Predicts the site of origin for cancer patients whose primary tumor site is unknown using tumor RNA expression results • Intended use of the TO test is for cancers of unknown primary, or CUPs, and may help clinicians make more informed decisions where other clinical information like imaging and immunohistochemistry results do not provide a definitive diagnosis • Uses information from analysis of nucleic acids by NGS performed as part of a separately ordered genomic or transcriptomic test • Built using a large internal database of more than 20,000 annotated tumors with transcriptomic molecular data. By comparing the molecular profile (transcriptome) of the patient’s cancer with profiles of other cancers in our database, we can help pinpoint the origin of the patient’s cancer, potentially helping to inform the course of therapy • For the year ended December 31, 2024, ordered on approximately 10% of our solid tumor profiles
Homologous Recombination Deficiency (“HRD”) Test	2020	• A DNA-based algorithmic test that helps identify if a patient has HRD, providing a comprehensive view into a patient’s ability to repair double-stranded DNA breaks • HRD status can be used to identify patients who may be sensitive to PARP inhibitors and/or platinum-based chemotherapy • Takes into account results from our solid tumor profiling, giving a full view into commonly mutated genes in the HR-pathway, along with a genome wide LOH score, giving a clinician a complete view of HRD status • Can be ordered across all major cancer subtypes and does not require additional tissue from the patient • Currently incorporating RNA into a second version of the algorithm, which is intended to improve prediction

Algo	Launch Year	Description
Dihydropyrimidine Dehydrogenase Deficiency (“DPYD”) Test	2021	- Identifies certain alterations in the <i>DPYD</i> gene, which may be associated with a patient’s potential toxicity to 5-FU/Capecitabine chemotherapy based on the associated drug labeling and guidelines from the Clinical Pharmacogenomics Implementation Consortium, or CPIC. - Provides insight into the potential likelihood of a patient developing severe or even fatal toxicity of 5-FU/Capecitabine chemotherapy by covering five SNVs in <i>DPYD</i> genes, providing a more complete patient profile. According to CPIC, 5-7% of patients test positive for DPYD deficiency and should be considered for monitoring or dose reduction. - This algorithm uses sequencing data generated as a part of a separately-ordered Tempus xT Solid Tumor + Normal test. - Tempus DPYD is available pan-cancer although it is most relevant in colorectal, breast, pancreatic and GI cancer patients who are being considered for treatment with 5-FU/Capecitabine chemotherapy.
Tempus Purist SM	2023	- Tempus PuristSM test is an algorithm that classifies pancreatic ductal adenocarcinomas (PDAC) patients into one of two subtypes (basal-like or classical). - Patients with the basal subtype have a worse prognosis and are less likely to benefit from FOLFIRINOX therapy than classical patients. - Uses information from nucleic acids by NGS performed as part of a separately ordered genomic or transcriptomic test. - USES a k-top scoring pair (k-TSP) method (8 top scoring pairs, 16 genes in total) to assign a basal probability score. Patients with a basal probability score of ≥ 50 are categorized as basal subtype, while those with basal probability score < 50 are categorized as classical subtype.

Our Cardiology Algos

Heart disease is the leading cause of death in the United States. About 700,000 Americans die from heart disease annually, with more than 11% of American adults diagnosed with heart disease and millions of patients suffering from undiagnosed, life-threatening, yet highly treatable conditions such as AFib, cardiomyopathy, and valvular heart disease, to name a few. Tempus is working on solutions to find, diagnose, and help treat these patients earlier in order to improve patient outcomes, using routinely generated clinical data, such as data from a 12-lead ECG, a widely used and easily acquired medical test that measures the electrical activity of the heart, to screen patients who might be at high risk and help navigate them to the appropriate interventional therapy.

In cardiology, we ingest multimodal data and use approximately 60 algorithms to identify potential care gaps and continuously monitor patient data to find at-risk patients who may be falling through a care gap unbeknownst to their physician, and automatically notify care teams of any needed follow-up or disease progression. More than 100 hospitals nationwide are currently powered by Tempus Next and more than 45,000 patients are screened per month.

We are also developing algorithmic models that aid clinicians in identifying patients at increased risk of developing atrial fibrillation, or AFib, along with a variety of other cardiac conditions. These Algos are trained using a de-identified subset from approximately 3.5 million ECGs, across more than 800,000 patients, with decades of longitudinal clinical data, including outcome and response data. The FDA granted Tempus breakthrough status for our first ECG software device, which employs a diagnostic algorithm designed to identify patients at high risk of developing AFib in certain populations (patients 40 years of age and older, without pre-existing or concurrent AFib or atrial flutter, and who are at elevated risk of stroke based on a commonly used clinical stroke risk assessment tool (i.e., CHA₂DS₂-VASc score of ≥ 4)).

Algo	Launch Year	Description
Cardiology		
Atrial Fibrillation Test	2023 (in clinical trial setting)	- We have developed an algorithm designed to predict AFib from a normal ECG for certain populations. - About 3.5% of patients who receive ECGs appear not to have AFib but will develop AFib, acute coronary syndrome, or similar condition within one year. This Algo is designed to predict major cardiac trauma and stroke risk from these normal ECG results. - The Tempus AFib test received FDA breakthrough designation in March 2021 for patients 40 years of age and older, without pre-existing or concurrent AFib or atrial flutter, and who are at elevated risk of stroke based on a commonly used clinical stroke risk assessment tool (i.e., CHA₂DS₂-VASc score of ≥ 4). - We are also advancing Algos that are designed to predict aortic stenosis, and we are working on other disease areas within cardiology, such as low ejection fraction and familial hypercholesterolemia.

We are also advancing Algos that are designed to predict aortic stenosis, and we are working on other disease areas within cardiology, such as low ejection fraction and familial hypercholesterolemia. If broadly deployed, we believe these Algos could have widespread clinical applicability, increase life expectancy, and reduce the total cost of care.

In addition to algorithms based on NGS testing or in the cardiology space, we currently offer more than 50 algorithms and are continuing to develop additional algorithms derived from radiologic images and digital pathology slides. In October 2022, we acquired Arterys, Inc., a company that provides a platform to derive insights from radiologic medical images to improve diagnostic decision-making, efficiency, and productivity across multiple disease areas. We have also developed algorithms based on Immunohistochemistry, or IHC, and H&E staining, which can be used, among other things, to help identify patients who may be eligible for additional treatments or clinical trials.

Commercialization

Our commercial efforts are generally focused on driving increased adoption of our various products and services, both by increasing the utilization of existing customers and securing new customers. We employ targeted sales and business development organizations, whose team members are engaged in direct sales and marketing efforts. Our commercial teams typically target healthcare providers and life sciences companies, which are the main purchasers of our products and services. We describe below our overall commercial strategy for each of our three products.

Genomics

Our Genomics product line, largely made up of molecular testing, has two primary customers: physicians and bio-pharma companies. When we sell our tests to physicians we are typically providing them as part of routine clinical care and we are often billing insurance and seeking reimbursement on behalf of the patients for whom the test was ordered. When we sell our test to bio-pharma, we are typically being paid as a contract sequencing provider, either for the trials they are running or as a companion diagnostic to their drug. On the physician side, we commercialize our Genomics products in the United States to clinicians and healthcare providers largely through our dedicated clinical sales organization, that calls on individual

doctors or medical practices. As of December 31, 2024, our clinical sales organization in the United States included approximately 210 sales representatives who are primarily contacting oncologists, psychiatrists, and other healthcare providers. Our sales representatives typically have backgrounds either in a particular disease area (such as oncology or neuropsychiatry) or in laboratory testing and therapeutics more generally. We supplement our commercial team with clinical specialists with extensive medical affairs experience who provide molecular support in the field.

In oncology, which currently is our largest market, we are focused on driving adoption by targeting individual treating physicians, academic medical centers, community oncology practices, leading physician networks, and industry associations. We also are exploring relationships with third-party payers and governmental institutions. We have a land and expand strategy, by account, whereby we attempt to sign new accounts and increase adoption of our platform within these accounts over time. As such, we often begin a relationship that is transactional in nature, but seek over time, to work on a more comprehensive basis with healthcare providers, serving an ever increasing percentage of our molecular diagnostic needs over time. We find that once a physician starts using Tempus, if they order more than 5 oncology NGS tests from us, their 12-month retention rate is 87%.

In addition, we believe that interactions among treating physicians help drive adoption of our products. We are focused on key opinion leaders in the industry through direct outreach and indirect marketing efforts. As of December 31, 2024, we have either published or been acknowledged in 600 publications (more than 450 Tempus-authored), including the following:

- 163 total (120 Tempus-authored) peer-reviewed articles published or accepted for publication in major journals, including publications such as *Nature Biotechnology*, *Clinical Breast Cancer*, *Nature Medicine*, and *Cell*.
- 339 total (281 Tempus-authored) poster presentations based on clinical and research data that have been accepted and presented at major scientific conferences.
- 37 oral presentations at scientific meetings such as the ASCO, ASCO Gastrointestinal and Genitourinary Cancer Symposia, San Antonio Breast Cancer Symposium, and the American Heart Association Scientific Sessions.

We have a similar strategy in neuropsychiatry, in which we aim to increase the commercial adoption of our nP test for depression as part of the rapidly growing market for pharmacogenomic testing, with a goal to better understand, diagnose and treat neuropsychiatric disorders.

Our commercial strategy for other disease areas is expected to follow our strategy in oncology, which is to focus on offering a broad range of molecular diagnostics to the market, that are connected to clinical data, so we can track how molecular results correlate with outcomes and responses, thereby making our tests smarter and more personalized overtime.

Research Testing

A small component of our genomic testing involves testing performed in a research capacity. This type of testing is typically done under an agreed upon contracted arrangement for specific tests at specific prices and volumes. Typical customers in these arrangements are pharmaceutical companies engaged in testing for clinical trials, researchers who need genomic testing to further research activities, or a company marketing products or services of their own who elects to use us as a reference laboratory. In this type of research testing, the agreed upon rate for testing may vary significantly, and in some cases may even be offered as an in-kind service in exchange for other rights we obtain in the contracted relationship.

As it relates to selling our Genomic Products to bio-pharma, we have a dedicated team of sales executives focused on calling on biotech and pharmaceutical companies who use genomic sequencing services predominantly for the research they are conducting, the clinical trials they are running, or as a companion diagnostic to the extent their therapeutic relies on a bio-marker. To this group, we are typically selling retrospective and prospective sample testing services, as well as companion diagnostic development to support the approval and commercialization of therapeutics.

Data and Services

In addition to our field sales force, our Data and Services products rely on a dedicated business development team focused on enterprise sales to pharmaceutical and biotechnology companies in the United States and abroad. Our strategy with each customer is to demonstrate the value proposition of our Platform and de-identified datasets, and to expand the utilization of our Data and Services products across the organization from early-stage research through clinical development

to commercialization. Given the broad and differentiated utility of our Platform, we believe we can support our pharmaceutical and biopharmaceutical customers across many applications, including:

- early stage research and development;
- discovery of new targets and mechanisms of acquired resistance;
- clinical trial patient identification and enrollment; and
- Analytic services, including cloud and compute.

We also expect to be able to capture other commercial opportunities from our genomic data, which can be used in combination with clinical outcomes or claims data for multiple applications, including novel target identification, label expansion, and other commercial applications.

As of December 31, 2024, we had approximately 50 sales executives in our Data and Services product line development organization. We divide these individuals by both geography and strategic account to ensure consistency and coordination across our sales efforts.

AI Applications

Our third product line, AI Applications, is focused on developing and providing diagnostics that are algorithmic in nature, implementing new software as a medical device, and building and deploying clinical decision support tools. Our primary AI Applications product is currently “Next,” an AI platform that leverages machine learning to apply an “intelligent layer” onto routinely generated data to proactively identify and minimize care gaps for oncology and cardiology patients. As this product gains adoption, we intend to leverage large language models, generative AI algorithms, and our vast database of de-identified data to develop algorithmic diagnostics designed to identify these patients earlier in their disease progression, when treatments are most effective.

We develop Algos in three ways: (i) we may develop them internally based on our robust de-identified dataset; (ii) we may collaborate with a third party to develop Algos together; and (iii) we may license an existing Algo from a third party. Once we clinically validate an Algo, we typically bring it to market through our existing provider network by leveraging our Genomics sales force. For example, our HRD and TO Algos in oncology have been added to our standard requisition forms, online portal, and EHR integrations. Treating clinicians can order these Algos at the same time they place their standard clinical testing orders for our other Genomics products. We believe clinicians find significant value in being able to receive multiple answers from Tempus while only needing to provide one set of biospecimens, thereby reducing the burden on their patients and their staff. At present, we expect our Algos in other disease areas to go to market through our network of EHR integrations and clinical collaborations.

In October 2022, we acquired Arterys, Inc., a company that provides a platform to derive insights from radiology medical images to improve diagnostic decision-making, efficiency, and productivity across multiple disease areas. We have also developed algorithms based on IHC and H&E staining, which can be used, among other things, to help identify patients who may be eligible for additional treatments or clinical trials.

We commercialize AI Applications in multiple ways. The commercialization of future Algos will depend the nature of each and whether we are able to bill insurance separately. When we do so, we expect reimbursement will be limited for most Algos at launch and may grow over time as we build additional evidence to support the clinical utility and benefit of each Algo.

Competition

The increasing value of using data to inform clinical care and drug development decisions is leading more companies to attempt to develop offerings that are marketed in a manner that makes them appear comparable to ours. As a result, each of our products faces increasing competition from a number of other companies.

Our Genomics products line primarily faces competition from diagnostics companies that profile genes in cancers and other disease areas, based on either single-marker or comprehensive genomic profile testing, using NGS to evaluate either blood or tissue. Our primary competitors for our currently marketed precision oncology tests include Foundation Medicine, Inc., which was acquired by Roche Holdings, Inc., Caris Life Sciences, Guardant Health, Inc., Natera, Neogenomics, ResolutionBio, which was acquired by Agilent, and others. As we expand into other applications such as recurrence monitoring or minimal residual disease, as well as potentially testing for early detection in the future, we anticipate facing competition from a broader universe of companies. Legacy diagnostic laboratories, such as Quest and LabCorp may also pose competitive threats within the market. Competitors for our pharmacogenetic test in neuropsychiatry include Myriad Genetics, Inc. and Genomind, Inc.

Our Data and Services products primarily face competition from companies that help pharmaceutical and biotechnology companies acquire data to inform drug discovery and development. Our main competitors in this area are Flatiron Health, Inc., IQVIA Holdings Inc., ConcertAI, and others. Our Data and Services products also face competition from CROs, such as Fortrea, ICON, Syneos, PPD, and others, who provide data and clinical trial matching services to pharmaceutical and biotechnology companies.

Our AI Applications products face competition from providers that are focused on providing laboratory testing or algorithm-based diagnostics for the disease and application areas in which our Algos are focused. Our TO test competes with liquid or tissue-based diagnostic tests from Roche Holdings, Inc., Caris Life Sciences, Guardant Health, Inc., Illumina, Inc., and others. Our HRD test competes with tests from Myriad Genetics, Inc., Caris Life Sciences, and others. We may also compete with companies developing or commercializing algorithm-based diagnostics using a variety of different data modalities, including digital pathology companies such as PathAI, Inc. and PaigeAI. In cardiology we may compete with companies such as HeartFlow Inc. and Eko Devices, Inc. We expect other competitors to enter this market, including academic medical centers who develop their own Algos and are looking for new ways to commercialize them. We believe we are positioned well against this competition given our broad provider network and our ability to deploy AI solutions at scale through our Platform.

Many of our competitors may have substantially greater financial and other resources than us, including larger research and development staff, or more established marketing and sales forces. Other competitors are in the process of developing novel technologies for the diagnostics and healthcare data markets that may lead to products that rival or replace our products. While we cannot be certain as to how the market will evolve, today we believe we are substantially differentiated from our competitors for many reasons, including the network effects of our products, proprietary technologies, rigorous product development processes and scalable infrastructure, customer experience, and multidisciplinary teams.

For further discussion of the risks we face relating to competition, see the section titled “Risk factors—Risks Related to Our Business and Strategy.”

Payer coverage and reimbursement

Clinical Testing

A majority of the genomic testing we perform is clinical in nature. We typically receive reimbursement for these tests from commercial payers and from government health benefits programs, such as Medicare and Medicaid. In almost all of our arrangements for clinical testing, we take on the obligation (and risk) to bill the patient’s insurance for the testing being provided, subject to other laws that may require us to directly bill the healthcare provider in limited circumstances. We also have a small number of “direct pay” arrangements where the provider may agree to pay us a specific amount and take on the billing obligation (and associated risk of payment) for the testing performed for that customer’s patients, or where a third-party advocacy group or government agency has arranged for and agreed to pay for testing.

Laboratory tests such as our genomic tests, as with most other healthcare services, are classified for reimbursement purposes under a coding system maintained by the American Medical Association known as current procedure terminology, or CPT, which we use to bill and receive reimbursement for our tests. CPT codes are associated with the particular test that we have provided to the patient, but do not always precisely describe the testing offered.

Once the American Medical Association establishes a CPT code, the Centers for Medicare & Medicaid Services, or CMS, establish payment levels and coverage rules under Medicare (sometimes through national coverage determinations, or NCDs), although it delegates some of that authority to local Medicare administrative contractors, or MACs, who may have local coverage determinations, or LCDs, in place. Private payers establish their rates and coverage rules independently.

As of December 31, 2024, we had received payment on approximately 55% of our clinical oncology NGS tests across all payers performed from January 1, 2022 through December 31, 2023. We calculated this metric on a trailing basis based on payer adjudication timing. However, we continued to perform our NGS tests through December 31, 2024. For the years ended December 31, 2024 and 2023, our average reimbursement for NGS tests in oncology was approximately \$1,510 and \$1,450, respectively. Our strategy to improve reimbursement is as follows:

- Continue to work with NGS, our local MAC in Chicago, to maintain coverage of current assays, obtain coverage of new assays through engagement and reconsideration requests, and to continue various appeals when coverage is denied.
- Continue to work with our new MAC, Palmetto, which covers our tests when performed out of our newest lab in Raleigh, North Carolina, to get the technical assessment of our assays approved and coverage policy in place for reimbursement.
- Continue to seek FDA approval of additional assays.
- Continue to work with commercial payers to both get in network and get our assay approved and reimbursement at a higher rate than it currently is.

At present, we have a team that is dedicated to the above, and if we are successful we would expect our reimbursement per assay to be more in line with other NGS providers who have adopted similar strategies, such as FMI and Guardant.

Algos

Because we expect the Algos we bring to market to provide value to a wide variety of stakeholders in the healthcare ecosystem, we anticipate that the payment we may be able to obtain will vary substantially. Value obtained is likely to depend on the nature of the underlying product or service developed, as well as the disease area and manner in which the product or service is made available. For example, while the current HRD and TO offerings are point-of-care ordered, and are reimbursed through our xR assay, we do not expect to be limited only to payment and reimbursement through the typical fee-for-service reimbursement model based solely on point-of-care clinical testing. We may also develop Algos in combination with life sciences companies in which we are paid directly or through alternative payment structures.

In sum, we expect that reimbursement for our Genomics products and Algos may provide value to, and potentially be paid for by, pharmaceutical companies, health maintenance organizations, managed care organizations, pharmacy benefit managers, large employers, and integrated delivery network health systems, in addition to being reimbursed by government healthcare programs, private insurers and other third-party payers. Those arrangements may take many forms. Pharmaceutical companies have expressed interest in using some of our Algos to better identify, screen, stratify, and enroll patients in clinical trials, payers have expressed interest in Algos that could assist them in value-based care initiatives that reduce spending waste in the healthcare system, and large health systems have expressed interest in certain population health screening Algos that could assist them in providing higher quality care, better outcomes for patients, and/or in reducing costs.

Operations

We currently perform our laboratory tests, including our NGS and anatomic pathology tests in our clinical laboratories in Chicago, Atlanta, Raleigh and Aliso Viejo. Our Chicago, Atlanta, Raleigh, and Aliso Viejo laboratories are CAP-accredited and CLIA-certified, and licensed in other states including New York, California, Maryland, Pennsylvania, and Rhode Island.

The scale our laboratories have been able to achieve in the approximately 9 year period since we ran our first clinical test is a direct result of the quality and experience of our laboratory staff, our investment in technologies in the laboratory that assist with automation and workflow improvements, and the ability of our engineering staff to build fit for purpose applications in a rapid development environment to support the laboratory's evolving needs. Our leadership staff in laboratory operations has decades of experience in running high-quality, high-throughput assays and have been instrumental in putting in place the necessary standard operating procedures to perform the volume of testing we do in a repeatable, reliable manner while constantly looking for opportunities to improve and refine our processes. The workflows in our laboratory are designed for high-throughput testing and numerous steps in the process are fully automated or semi-automated using robotics and other advanced workflow technologies. At present, for our xT and xF tests, our laboratory workflows enable us to successfully deliver results over 96% of the time, assuming tissue is received that meets the minimum requirements we have outlined for our assays.

Our investments have allowed us to continuously drive turnaround time downward, to provide results to doctors and their patients in a timeframe that we believe now meets or exceeds many of our competitors who have been operating in the NGS space for longer. As of December 31, 2024, our average turnaround time for our xT assays was approximately nine days, and our average turnaround time for xF was approximately eight days.

We believe that the strong foundational infrastructure in our laboratory operations, along with the technology used in our lab and the engineering expertise we have on hand is further differentiated when coupled with the connections we can rapidly deploy with our customers, and the experienced research scientists and doctors we employ, who are able to design and refine our highest volume assays in-house. We believe this unique combination will continue to allow us to rapidly respond to the changing needs of our customers and evolving market conditions.

Our Strategic Collaborations

AstraZeneca Master Services Agreement

In November 2021, we entered into a Master Services Agreement, or, as amended in October 2022, February 2023 and December 2023, the MSA, with, and issued a warrant to, AstraZeneca. Under the MSA, we agreed, on a non-exclusive basis, to provide AstraZeneca with certain of our products and services, including licensed data, sequencing, clinical trial matching, organoid modeling services, algorithm development, and others. In exchange for certain discounted prices, AstraZeneca has committed to spend a minimum of \$220 million on such products and services during the term of the MSA. The minimum commitment may increase to \$320 million, if the average closing price of our Class A common stock exceeds two times the IPO price (as defined below) for any 30-day trading period following the one-year anniversary of the initial public offering of our Class A common stock, or our IPO. The term of the master services agreement will continue through December 31, 2028, unless terminated sooner.

Under the warrant, AstraZeneca had the right to purchase up to \$100 million in shares of our Class A common stock at an exercise price equal to \$37 per share, representing the offering price in our IPO, or the IPO price. The warrant was exercisable through December 31, 2026. Under the terms of the warrant, AstraZeneca would be entitled to substantially the same registration rights with respect to the shares under the warrant as those granted to holders of registrable securities pursuant to our Ninth Amended and Restated Investors' Rights Agreement, dated November 19, 2020. The warrant was automatically cancelled and terminated for no consideration as AstraZeneca declined to extend its financial commitment before December 31, 2024.

GSK Master Services Agreement

In August 2022, we entered into a Strategic Collaboration Agreement, or, as amended in May 2024, the GSK Agreement, with GSK. Under the GSK Agreement, we agreed, on a non-exclusive basis, to provide GSK with certain of our products and services, including licensed data, sequencing, clinical trial matching, organoid modeling services, algorithm development, and others. In exchange for certain discounted prices, GSK has committed to spend a minimum of \$180 million on such products and services during the term of the GSK Agreement, of which \$70 million was paid upon execution. The term of the GSK Agreement will continue through December 31, 2027, unless terminated sooner. An additional commitment of up to \$120 million may be triggered at GSK's election for the years 2028, 2029 and 2030.

Recursion Master Agreement

In November 2023, we entered into a Master Agreement, or the Recursion Agreement, with Recursion Pharmaceuticals, Inc., or Recursion. Under the Recursion Agreement, we agreed to provide certain of our services and to license certain data to Recursion, including a limited right to access our proprietary database of de-identified clinical and molecular data for certain therapeutic product development purposes. In exchange for these rights, Recursion will pay an initial license fee of \$22 million and an annual license fee throughout the term of the agreement, which, together with the initial license fee, totals up to \$160 million. The term of the Recursion Agreement will continue through November 3, 2028, unless terminated sooner. In addition to mutual rights to terminate for an uncured breach of the Recursion Agreement, Recursion may terminate the agreement for convenience after three years upon 90 days prior notice, subject to payment by Recursion of an early termination fee.

The initial license fee and each annual license fee are payable at Recursion's option either in the form of (x) cash, (y) shares of Recursion's Class A common stock, or (z) a combination of cash and shares of Recursion's Class A common stock in such proportion as is determined by Recursion in its sole discretion; provided that the aggregate number of shares of Recursion's Class A common stock to be issued to us under the Recursion Agreement shall not exceed 19.9% of the aggregate total of shares of Class A common stock and Class B common stock outstanding on November 3, 2023, or the date immediately preceding the date of any shares of Class A common stock issued pursuant to the Recursion Agreement, whichever is less. We have customary registration rights with respect to any shares of Recursion's Class A common stock issued pursuant to the Recursion Agreement.

Quality Assurance

We are committed to providing reliable and accurate molecular information to our customers. We have established sophisticated laboratory workflows and automated procedures to ensure accurate specimen identification, timely communication of results, and prompt discovery and correction of errors. We monitor our quality through a variety of methods, including objectively measured performance improvement indicators. Any quality concerns and incidents are subject to risk assessment, root cause analysis, and corrective action plans. Safeguarding protected health information, or PHI, is of primary importance.

We have established a comprehensive quality assurance program for our laboratory. Our quality assurance program includes policies and procedures covering personnel qualifications and training requirements, process and test validation, quality control of reagents and test processes, proficiency testing, routine monitoring, and internal audit. We have implemented policies and procedures to adhere to applicable requirements necessary for federal and state licenses and accreditation for clinical diagnostic laboratories, including policies and procedures related to patient and employee safety, hazardous waste disposal, and general laboratory management.

Supply Chain

We have a highly automatic system in place to manage our workflow called LIMS, which also connects to our various supply chain systems through which we ensure materials are ordered in a timely manner, and the logistics of each order are overseen to ensure we are delivering orders, in the shortest time possible, with the highest quality possible.

We maintain significant inventory on hand of both laboratory consumables and other materials to avoid work stoppages and/or material delays. Our systems, processes, and procedures are designed to scale, as evidenced by the fact that we have become one of the largest sequencers of cancer patients in the United States in just a few years.

We rely on a limited number of suppliers, or, in some cases, sole suppliers to provide our products and services. Illumina, Inc., is our primary supplier of sequencers and laboratory reagents; however, we purchase laboratory supplies from other companies as well, such as Roche Holdings, Inc., Integrated DNA Technologies, and PerkinElmer. We rely on standard commercial carriers for the delivery of samples to our laboratories.

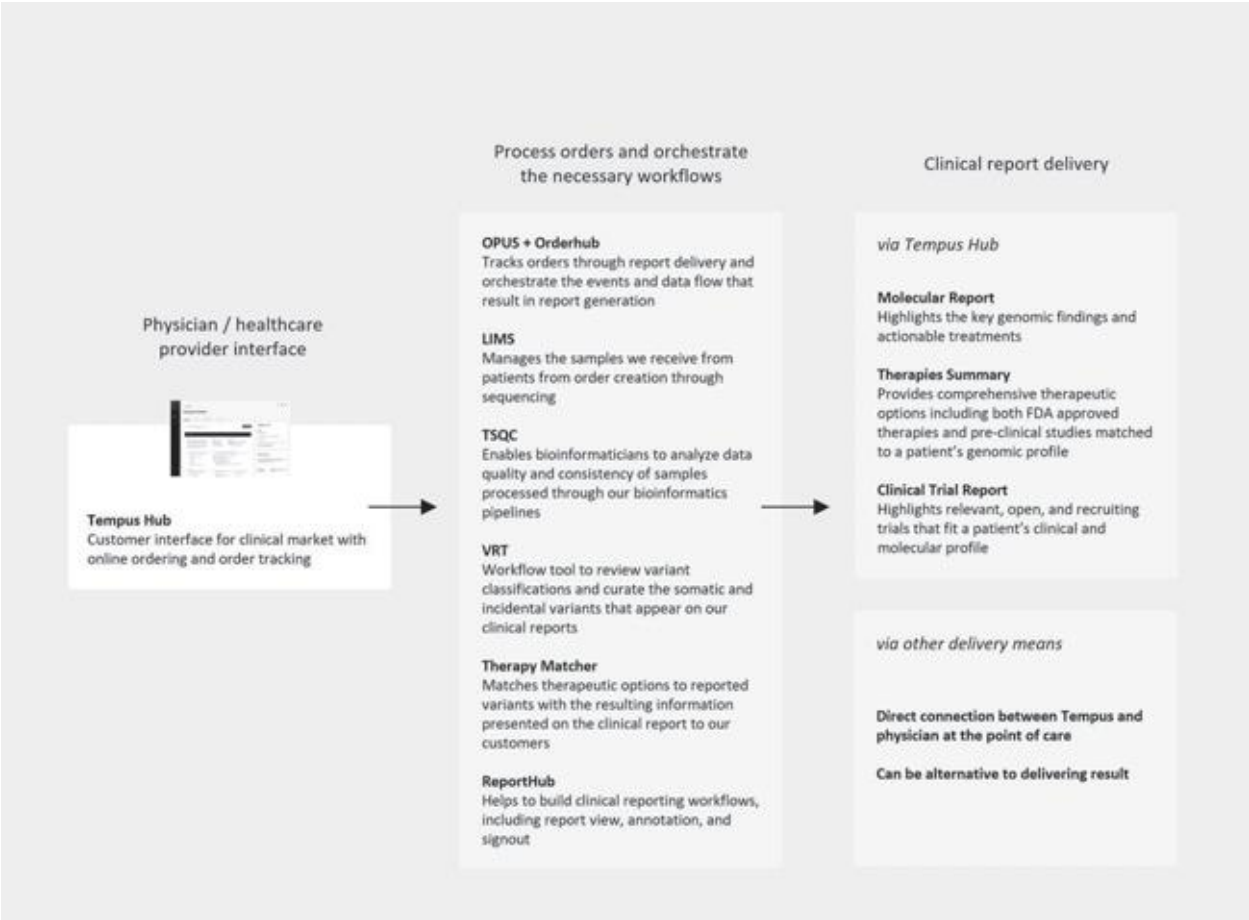
In June 2021, we entered into a supply agreement with Illumina to provide products and services that can be used for certain research and clinical activities, including certain sequencers, reagents, and other consumables for use with the Illumina sequencers, as well as service contracts for the maintenance and repair of the sequencers. The supply agreement does not require us to order minimum amounts of hardware, or to use exclusively the Illumina platform for conducting our sequencing. The term of the supply agreement continues for a period of 12 years, unless either we or Illumina terminate the supply agreement for the other's uncured material breach, bankruptcy or insolvency-related events, or in the event a regulatory authority notifies such party that continued performance under the supply agreement would violate applicable laws

or regulations. Illumina may terminate the agreement in the event we consummate a change of control transaction with a sequencing products company, and we may terminate the supply agreement for convenience upon 90 days’ prior written notice.

In addition to suppliers who provide products supporting our provision of laboratory tests, we have cloud agreements with both AWS and Google. In June 2020, we signed a multi-year strategic partnership with Google that included an agreement through which Tempus procures extensive cloud services from Google. The cloud agreement includes a convertible note that is reduced as we procure services from Google and also contemplates co-innovation projects that we may work on with Google from time to time.

Laboratory Workflow Applications

With respect to the provision of laboratory services, in addition to Hub, our consumer- facing application, we have developed multiple software tools that facilitate back-end processing, workflow, and report generation. Our back-office software stack was custom developed around our workflow, allowing us to automate material components of our laboratory and order generation process. The following diagram represents the software applications supporting our laboratory workflow.



We have also developed a series of tools that allow us to access our connected dataset and our internal workflow tools, as we seek to query our own data and make it available both internally and externally. In an effort to facilitate a connection between our providers and our data, we built an application called *Tempus One*, which is both a physical device and a mobile software application that has AI assistant capabilities and relays information contained in our oncology reports and supporting database to physicians through voice activated interactions in real time. We believe Tempus One has the potential to create a more efficient workflow for healthcare professionals, reducing the time needed to review and process information, providing more time for them to focus on patient care. Over time, we intend to embed more insights into Tempus One, and other similar applications we develop, thereby enhancing the amount of information readily available to our ordering physicians.

Data Structuring Applications

After we generate a clinical report through the provision of laboratory services, or once we obtain data through one of our dedicated connections to providers, we utilize a different suite of proprietary software applications to abstract, structure, and de-identify the resulting data to help augment our existing multimodal dataset and provide additional healthcare services to our customers. Our tools have become highly efficient over time allowing us to abstract data, often between 50-100 discrete data elements per patient case, in approximately an hour (or the cost equivalent), which do both onshore and offshore through dedicated teams we have established to perform the data curation and abstraction. In addition, we have the capability to perform enhanced abstraction, which can take several hours per patient case, allowing us to define a custom set of features over a defined period of time that we want abstracted. Each of our proprietary tools is designed to enhance our customers' experience, either by creating useful information that assists in the treatment of patients, or by creating an efficient back-end infrastructure that allows us to deliver our services more quickly and efficiently.

Information Security

We endeavor to maintain a robust information security program in an effort to protect all of the sensitive data we maintain, including PHI and PII and we take all threats to the availability, integrity and confidentiality of that data with the utmost seriousness. Our security program consists of a layered defense approach starting with appropriate data and system design through architectural principles that include security as a core component at every step of the process. This security by design approach is enhanced with physical security, host and endpoint device management, application security, and infrastructure and cloud security. In each of those areas, we utilize industry-standard third-party tools that are designed to assist our team of security professionals in their various tasks and we work closely with our vendors, including those who provide cloud computing services that make up substantial parts of our infrastructure (e.g., Google and Amazon).

Our security program is operationalized through documented policies, procedures and required training for all staff in the entire company, with special emphasis on key teams in engineering and IT operations who develop, monitor and maintain the applications and systems used in our business. In an effort to ensure that these policies are adhered to and that no new vulnerabilities arise, we conduct regular auditing of a wide swath of our security related measures, including a mix of self-audits, external penetration testing, external application security audits and audits performed by our customers and partners. Our security team is also instrumental in maintaining our ISO 27001 certification and assisting the compliance and legal teams with other legally required audits and provides detailed reports regularly to upper management and the Board on security related matters.

Intellectual Property

Our success depends in part on our ability to obtain and maintain intellectual property and proprietary protection for our products and technology, defend and enforce our intellectual property rights, preserve the confidentiality of our trade secrets, and operate without infringing, misappropriating or otherwise violating valid and enforceable intellectual property and proprietary rights of others. We are actively involved in research and development and therefore seek to protect the investments we have made into the development of our products and technology by relying on a combination of patents, trademarks, trade secrets, know-how, and license agreements. We also seek to protect our proprietary technology, in part, by requiring our employees, consultants, contractors and other third parties to execute confidentiality agreements and invention assignment agreements and by implementing technological protections for our intellectual property.

As of December 31, 2024, our patent portfolio and patent applications included 96 issued U.S. patents and allowed applications, 130 pending U.S. non-provisional patent applications, 8 pending U.S. provisional patent applications, 9 pending Patent Cooperation Treaty (international) patent applications, 33 issued foreign patents, 189 pending foreign patent applications, 6 licensed issued U.S. patents, 4 licensed pending U.S. patent application, 10 licensed issued foreign patents and 2 licensed pending foreign patent applications. Our issued patents are expected to begin expiring in 2033, assuming payment of all appropriate maintenance, renewal, annuity or other governmental fees. These patents and applications generally fall into four broad categories:

- applications and patents relating to our Platform, including claims directed to product ordering processes; data processing and multimodal data analytics;
- applications and patents relating to our Genomics business, including claims directed to detecting and monitoring cancer and other diseases by determining genetic variations and other biomarkers in biological samples;

- applications and patents relating to our Data business, including claims directed to analysis of healthcare records and patient outcomes; and
- applications and patents related to our Algos business, including claims directed to machine learning diagnostics and predictions in cancer and cardiology.

The term of individual patents depends upon the legal term of the patents in the countries in which they are obtained. In most countries in which we file or intend to file, including the United States, the patent term is 20 years from the earliest date of filing a non-provisional patent application. Additionally, a U.S. provisional patent application expires twelve months from its filing date, and its subject matter can only be claimed in an issued patent if, among other things, we timely file a non-provisional patent application making a valid priority claim to that provisional patent application before it expires. In the United States, a patent's term may be lengthened by patent term adjustment, which compensates a patentee for administrative delays by the USPTO in examining and granting a patent, or may be shortened if a patent is terminally disclaimed over an earlier filed patent. We cannot be sure that patents will be granted with respect to any current pending patent application or with respect to any patent applications filed by us in the future, nor can we be sure that any current or future patents will be commercially useful in protecting our platform, products, services, technologies and processes. In addition, any patents that we may hold, whether owned or licensed, may be challenged, circumvented or invalidated by third parties.

The success of our business strategy also depends in part on our continued ability to protect our branded services, and we own registered trademarks on “TEMPUS” and product related brand names in the United States and worldwide.

We also rely on trade secrets, including know-how, unpatented technology and other proprietary information, to strengthen our competitive position. We seek to protect trade secrets and confidential and unpatented know-how, in part, by entering into non-disclosure and confidentiality agreements with parties who have access to such knowledge, such as our employees, collaborators, manufacturers, consultants, advisors and other third parties. We also seek to enter into confidentiality and invention or patent assignment agreements with our employees and consultants that obligate them to maintain confidentiality and assign their inventions to us.

Our ability to stop third parties from making, using, selling, offering to sell or importing our Platform, services and products depends on the extent to which we have rights under valid and enforceable patents, trade secrets or other intellectual property and proprietary rights that cover these activities. We pursue intellectual property protection to the extent we believe it would advance our business objectives. Notwithstanding these efforts, there can be no assurance that we will adequately protect our intellectual property or provide any competitive advantage. For more information regarding risks relating to intellectual property, see “Risk Factors—Risks Related to Our Intellectual Property.”

Government Regulation

Regulation of Medical Devices in the United States

Our diagnostic products and services are subject to extensive and ongoing regulation by the FDA under the Federal Food, Drug, and Cosmetic Act of 1938 and its implementing regulations, collectively referred to as the FDCA, as well as other federal and state regulatory bodies in the United States. The laws and regulations govern, among other things, product design and development, pre-clinical and clinical testing, manufacturing, packaging, labeling, storage, record keeping and reporting, clearance or approval, marketing, distribution, promotion, import and export and post-marketing surveillance. Failure to comply with applicable requirements may subject a device and/or its manufacturer to a variety of administrative sanctions, such as FDA refusal to approve pending premarket applications, issuance of warning letters, mandatory product recalls, import detentions, civil monetary penalties, and/or judicial sanctions, such as product seizures, injunctions and criminal prosecution.

FDA Premarket Clearance and Approval Requirements

Unless an exemption applies, each medical device commercially distributed in the United States requires either FDA clearance of a 510(k) premarket notification, approval of a petition for premarket approval, or PMA, or grant of a de novo request for classification. During public emergencies, the FDA also may grant emergency use authorizations, or EUA, to allow commercial distribution of devices intended to address the public health emergency. Under the FDCA, medical devices

are classified into one of three classes—Class I, Class II or Class III—depending on the degree of risk associated with each medical device and the extent of manufacturer and regulatory control needed to provide reasonable assurance of its safety and effectiveness. Classification of a device is important because the class to which a device is assigned determines, among other things, the necessity and type of FDA review required prior to marketing the device.

Class I devices include those with the lowest risk to the patient and are those for which safety and effectiveness can be reasonably assured by adherence to the FDA’s “general controls” for medical devices, which include compliance with the applicable portions of the FDA’s Quality System Regulation, or QSR, facility registration and product listing, reporting of adverse medical events and malfunctions through the submission of Medical Device Reports, or MDRs, and appropriate, truthful and non-misleading labeling, advertising, and promotional materials. Some Class I devices also require 510(k) premarket notification clearance as described below.

Class II devices are moderate risk devices subject to the FDA’s general controls, and any other “special controls” deemed necessary by the FDA to ensure the safety and effectiveness of the device, such as performance standards, product-specific guidance documents, special labeling requirements, patient registries or post-market surveillance. Premarket review and clearance by the FDA for Class II devices is accomplished through the 510(k) process. The 510(k) submission must demonstrate that the device is “substantially equivalent” to a legally marketed predicate device, which in some cases may require submission of clinical data.

Class III devices include devices deemed by the FDA to pose the greatest risk, such as life-sustaining, life-supporting or implantable devices and devices deemed not substantially equivalent to a predicate device following a 510(k) submission. The safety and effectiveness of Class III devices cannot be reasonably assured solely by general or special controls. Submission and FDA approval of a PMA application is required before marketing of a Class III device can proceed. A PMA application is intended to demonstrate that the device is reasonably safe and effective for its intended use and must be supported by extensive data, typically including data from pre-clinical studies and clinical trials.

Emergency Use Authorization

In emergency situations, such as a pandemic, the FDA has the authority to allow unapproved medical products or unapproved uses of cleared or approved medical products to be used in an emergency to diagnose, treat or prevent serious or life-threatening diseases or conditions when there are no adequate, approved, and available alternatives.

Under this authority, the FDA may issue an EUA for an unapproved device if the following four statutory criteria have been met: (1) a serious or life-threatening condition exists; (2) evidence of effectiveness of the device exists; (3) a risk-benefit analysis shows that the benefits of the product outweigh the risks; and (4) no other alternatives exist for diagnosing, preventing or treating the disease or condition. Evidence of effectiveness includes medical devices that “may be effective” to prevent, diagnose, or treat the disease or condition identified in a declaration of emergency issued by the Secretary of U.S. Department of Health and Human Services, or HHS. The “may be effective” standard for EUAs requires a lower level of evidence than the “effectiveness” standard that the FDA uses for product clearances or approvals in non-emergency situations. Once granted, an EUA will remain in effect and generally terminate on the earlier of (1) the determination by the Secretary of U.S. HHS that the public health emergency has ceased or (2) a change in the approval status of the product such that the authorized use(s) of the product are no longer unapproved. After the EUA is no longer valid, the product is no longer considered to be legally marketed and one of the FDA’s non-emergency premarket pathways would be necessary to resume or continue distribution of the subject product.

The FDA also may revise or revoke an EUA if the circumstances justifying its issuance no longer exist, the criteria for its issuance are no longer met, or other circumstances make a revision or revocation appropriate to protect the public health or safety.

Clinical Trials

Clinical trials are typically required to support a PMA and are sometimes required to support a 510(k) submission. All clinical investigations of devices to determine safety and effectiveness must be conducted in accordance with the FDA’s investigational device exemption, or IDE, regulations which govern investigational device labeling, prohibit promotion of the investigational device, and specify an array of recordkeeping, reporting and monitoring responsibilities of study

sponsors and study investigators. If the device presents a “significant risk” to human health, the FDA requires the device sponsor to submit an IDE application to the FDA, which must be approved prior to commencing clinical trials. A significant risk device is one that presents a potential for serious risk to the health, safety or welfare of a patient and either is implanted, purported or represented to be used in supporting or sustaining human life, is for a use that is substantially important in diagnosing, curing, mitigating or treating disease or otherwise preventing impairment of human health, or otherwise presents a potential for serious risk to a subject.

An IDE supplement must be submitted to, and approved by, the FDA before a sponsor or investigator may make a change to the investigational plan that may affect its scientific soundness, study plan or the rights, safety or welfare of human subjects. In addition, the clinical trials must be approved by, and conducted under the oversight of, an Institutional Review Board, or IRB, for each clinical site. The IRB is responsible for the initial and continuing review of the IDE and may pose additional requirements for the conduct of the study. If an IDE application is approved by the FDA and one or more IRBs, clinical trials may begin at a specific number of investigational sites with a specific number of patients, as approved by the FDA. If the device is considered a “non-significant risk,” IDE submission to FDA is not required. Instead, only approval from the IRB overseeing the investigation at each clinical trial site is required.

Post-market Regulation

After a device is cleared or approved for marketing, numerous and pervasive regulatory requirements continue to apply. These include:

- establishment of registration and device listing with the FDA;
- QSR requirements, which require manufacturers and contract manufacturers, including any third-party manufacturers, to follow stringent design, testing, control, documentation and other quality assurance procedures during all aspects of the design and manufacturing process;
- labeling regulations and FDA prohibitions against the promotion of investigational products, or “off-label” uses of cleared or approved products;
- requirements related to promotional activities;
- clearance or approval of product modifications to 510(k)-cleared devices that could significantly affect safety or effectiveness or that would constitute a major change in intended use of a cleared device;
- medical device reporting regulations, which require that a manufacturer report to the FDA if a device it markets may have caused or contributed to a death or serious injury, or has malfunctioned and the device or a similar device that it markets would be likely to cause or contribute to a death or serious injury, if the malfunction were to recur;
- correction, removal and recall reporting regulations, which require that manufacturers report to the FDA field corrections, product removals or recalls if undertaken to reduce a risk to health posed by the device or to remedy a violation of the FDCA that may present a risk to health;
- the FDA’s recall authority, whereby the agency can order device manufacturers to recall from the market a product that is in violation of governing laws and regulations; and
- post-market surveillance activities and regulations, which apply when deemed by the FDA to be necessary to protect the public health or to provide additional safety and effectiveness data for the device.

The FDA has broad regulatory compliance and enforcement powers. If the FDA determines that we failed to comply with applicable regulatory requirements, it can take a variety of compliance or enforcement actions, which may result in any of the following sanctions:

- untitled letters, warning letters, fines, injunctions, consent decrees and civil penalties;
- unanticipated expenditures to address or defend such actions;
- customer notifications for repair, replacement, refunds;
- recall, withdrawal, administrative detention or seizure;

- operating restrictions or partial suspension or total shutdown of production;
- refusal of or delay in granting our requests for 510(k) clearance or PMA approval of new tests or modified tests;
- operating restrictions, partial suspension or total shutdown of production;
- withdrawing 510(k) clearance or PMA approvals that are already granted;
- refusal to grant export approval; or
- criminal prosecution.

Laboratory-Developed Tests (LDTs)

LDTs have generally been considered to be tests that are designed, developed, validated and used within a single laboratory. The FDA takes the position that it has the authority to regulate such tests as medical devices under the FDCA. The FDA has historically exercised enforcement discretion and has not required clearance or approval of LDTs prior to marketing. On May 6, 2024, the FDA published final regulations that took effect on July 5, 2024 that will phase-out enforcement discretion over a period of four years and require compliance with device registration and listing requirements, medical device reporting requirements, 510(k) clearance, denovo authorization or Premarket Approval and the requirements of the FDA's Quality System Regulation. In addition to FDA regulation, the New York Clinical Laboratory Evaluation Program separately approves certain LDTs offered to New York State patients.

CLIA and State Laboratory Licensing

Under the Clinical Laboratory Improvement Amendments, or CLIA, a laboratory is any facility that performs laboratory testing on specimens derived from humans for the purpose of providing information for the diagnosis, prevention or treatment of disease, or the impairment of or assessment of health. CLIA requires that a laboratory hold a certificate applicable to the type of laboratory examinations it performs and that it complies with, among other things, standards covering operations, personnel, facilities administration, quality systems and proficiency testing, which are intended to ensure, among other things, that clinical laboratory testing services are accurate, reliable and timely. We have a current CLIA certificate to perform our tests at our laboratories in Chicago, Illinois, Atlanta, Georgia, Raleigh, North Carolina, and Aliso Viejo, California. To renew our CLIA certificate, we are subject to survey and inspection every two years to assess compliance with program standards.

Laboratories performing high complexity testing are required to meet more stringent requirements than laboratories performing less complex tests. In addition, a laboratory that is certified as "high complexity" under CLIA may develop, manufacture, validate and use LDTs. CLIA requires analytical validation including accuracy, precision, specificity, sensitivity and establishment of a reference range for any LDT used in clinical testing. The regulatory and compliance standards applicable to the testing we perform may change over time and any such changes could have a material effect on our business.

CLIA provides that a state may adopt laboratory regulations that are more stringent than those under federal law, and a number of states have implemented their own more stringent laboratory regulatory requirements. State laws may require that nonresident laboratories, or out-of-state laboratories, maintain an in-state laboratory license to perform tests on samples from patients who reside in that state. As a condition of state licensure, these state laws may require that laboratory personnel meet certain qualifications, specify certain quality control procedures or facility requirements or prescribe record maintenance requirements.

Failure to comply with CLIA certification and state clinical laboratory licensure requirements may result in a range of enforcement actions, including certificate or license suspension, limitation, or revocation, directed plan of action, onsite monitoring, civil monetary penalties, criminal sanctions, and revocation of the laboratory's approval to receive Medicare and Medicaid payment for its services, as well as significant adverse publicity.

The College of American Pathologists, or CAP, maintains a clinical laboratory accreditation program. While not required to operate a CLIA-certified laboratory, many private insurers require CAP accreditation as a condition to contracting with clinical laboratories to cover their tests. In addition, some countries outside the United States require CAP accreditation as a condition to permitting clinical laboratories to test samples taken from their citizens. We have obtained CAP

accreditation for our Chicago, Illinois, Atlanta, Georgia, Raleigh, North Carolina, and Aliso Viejo, California laboratories. In order to maintain CAP accreditation, we are subject to survey for compliance with CAP standards every two years. Failure to maintain CAP accreditation could have a material adverse effect on the sales of our tests and the results of our operations.

Federal and State Health Care Laws

Federal Physician Self-Referral Prohibition

We are also subject to the federal physician self-referral prohibition, commonly known as the Stark Law, and to comparable state laws. Together these restrictions generally prohibit us from billing a patient or governmental or private payer for certain designated health services, including clinical laboratory services, when the physician ordering the service, or a member of such physician's immediate family, has a financial relationship, such as an ownership or investment interest in or compensation arrangement, with us, unless the relationship meets an applicable exception to the prohibition. Several Stark Law exceptions are relevant to many common financial relationships involving clinical laboratories and referring physicians, including: (1) fair market value compensation for the provision of items or services; (2) payments by physicians to a laboratory for clinical laboratory services; (3) space and equipment rental arrangements that satisfy certain requirements and (4) personal services arrangements that satisfy certain requirements. The laboratory cannot submit claims to the Medicare Part B program for services furnished in violation of the Stark Law, and Medicaid reimbursements may be at risk as well. These prohibitions apply regardless of any intent by the parties to induce or reward referrals or the reasons for the financial relationship and the referral. Penalties for violating the Stark Law include significant civil, criminal and administrative penalties, such as the return of funds received for all prohibited referrals, fines, civil monetary penalties, exclusion from the federal healthcare programs, integrity oversight and reporting obligations, and imprisonment. In addition, knowing violations of the Stark Law may also serve as the basis for liability under the federal False Claims Act, or FCA, which can result in additional civil and criminal penalties.

Federal Anti-Kickback Law

The federal Anti-Kickback Statute, or AKS, makes it a felony for a person or entity, including a clinical laboratory, to knowingly and willfully offer, pay, solicit or receive any remuneration, directly or indirectly, overtly or covertly, in cash or in kind, in order to induce business that is reimbursable under any federal health care program. The government may also assert that a claim that includes items or services resulting from a violation of the AKS constitutes a false or fraudulent claim under the FCA, which is discussed in greater detail below. Additionally, a person or entity does not need to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation. Although the AKS applies only to items and services reimbursable under any federal health care program, a number of states have passed statutes substantially similar to the AKS that apply to all payers. Penalties for violations of such state laws include imprisonment and significant monetary fines. Federal and state law enforcement authorities scrutinize arrangements between health care providers and potential referral sources to ensure that the arrangements are not designed as a mechanism to induce patient care referrals or induce the purchase or prescribing of particular products or services. Generally, courts have taken a broad interpretation of the scope of the AKS, holding that the statute may be violated if merely one purpose of a payment arrangement is to induce referrals or purchases. In addition to statutory exceptions to the AKS, regulations provide for a number of safe harbors. If an arrangement meets the provisions of an applicable exception or safe harbor, it is deemed not to violate the AKS. An arrangement must fully comply with each element of an applicable exception or safe harbor in order to qualify for protection. Failure to meet the requirements of the safe harbor, however, does not render an arrangement illegal. Rather, the government may evaluate such arrangements on a case-by-case basis, taking into account all facts and circumstances.

Other Health Care Laws

In addition to the requirements discussed above, several other health care fraud and abuse laws could have an effect on our business.

The FCA prohibits, among other things, a person from knowingly presenting, or causing to be presented, a false or fraudulent claim for payment or approval and from making, using, or causing to be made or used, a false record or statement material to a false or fraudulent claim in order to secure payment or retain an overpayment by the federal government. In addition to actions initiated by the government itself, the statute authorizes actions to be brought on behalf of the federal government by a private party having knowledge of the alleged fraud. Because the complaint is initially filed under seal, the action may be pending for some time before the defendant is even aware of the action. If the government intervenes and is

ultimately successful in obtaining redress in the matter or if the plaintiff succeeds in obtaining redress without the government's involvement, then the plaintiff will receive a percentage of the recovery. Finally, the Social Security Act includes its own provisions that prohibit the filing of false claims or submitting false statements in order to obtain payment. Several states have enacted comparable false claims laws which may be broader in scope and apply regardless of payer.

The Social Security Act includes civil monetary penalty provisions that impose penalties against any person or entity that, among other things, is determined to have presented or caused to be presented a claim to a federal health program that the person knows or should know is for an item or service that was not provided as claimed or is false or fraudulent. In addition, a person who offers or provides to a Medicare or Medicaid beneficiary any remuneration, including waivers of copayments and deductible amounts (or any part thereof), that the person knows or should know is likely to influence the beneficiary's selection of a particular provider, practitioner or supplier of Medicare or Medicaid payable items or services may be liable under the civil monetary penalties statute. Moreover, in certain cases, providers who routinely waive copayments and deductibles for Medicare and Medicaid beneficiaries, for example, in connection with patient assistance programs, can also be held liable under the AKS and FCA. One of the statutory exceptions to the prohibition is non-routine, unadvertised waivers of copayments or deductible amounts based on individualized determinations of financial need or exhaustion of reasonable collection efforts. The Office of Inspector General of the HHS emphasizes, however, that this exception should only be used occasionally to address special financial needs of a particular patient.

The federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, created new federal criminal statutes that prohibit, among other actions, knowingly and willfully executing, or attempting to execute, a scheme to defraud any healthcare benefit program, including private third-party payers, and knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false, fictitious or fraudulent statement in connection with the delivery of or payment for healthcare benefits, items or services. Like the AKS, a person or entity does not need to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation.

The Eliminating Kickbacks in Recovery Act of 2018, or EKRA, prohibits knowingly and willfully soliciting or receiving any remuneration (including any kickback, bribe or rebate) directly or indirectly, overtly or covertly, in cash or in kind, in return for referring a patient or patronage to a laboratory; or paying or offering any remuneration (including any kickback, bribe or rebate) directly or indirectly, overtly or covertly, in cash or in kind, to induce a referral of an individual to a laboratory or in exchange for an individual using the services of that laboratory. EKRA was enacted to help reduce opioid-related fraud and abuse. However, EKRA defines the term "laboratory" broadly and without reference to any connection to substance use disorder treatment. The EKRA applies to all payers including commercial payers and government payers. Violations of EKRA are subject to significant fines and/or up to ten years in jail, separate and apart from existing AKS regulations and penalties. The law includes a limited number of exceptions, some of which closely align with corresponding AKS exceptions and safe harbors, and others that materially differ. Currently, there is no regulation interpreting or implementing EKRA, nor any guidance released by a federal agency regarding the scope of EKRA.

HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act of 2009, or HITECH, and their respective implementing regulations, impose obligations on "covered entities," including certain healthcare providers, health plans, and healthcare clearinghouses, as well as their respective "business associates" and covered subcontractors that create, receive, maintain or transmit individually identifiable health information for or on behalf of a covered entity, with respect to safeguarding the privacy, security and transmission of individually identifiable health information. Additionally, HITECH created four new tiers of civil monetary penalties, amended HIPAA to make civil and criminal penalties directly applicable to business associates, and gave state attorneys general new authority to file civil actions for damages or injunctions in U.S. federal courts to enforce HIPAA and seek attorneys' fees and costs associated with pursuing federal civil actions.

The Physician Payments Sunshine Act, enacted as part of the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Affordability Reconciliation Act, or the ACA, also imposed annual reporting requirements on manufacturers of certain devices, drugs and biologics for payments and other transfers of value by them during the previous year to physicians (defined to include doctors, dentists, optometrists, podiatrists and chiropractors), other healthcare professionals (such as physician assistants and nurse practitioners) and teaching hospitals, as well as ownership and investment interests held by such physicians and their immediate family members.

Also, many states have laws similar to those listed above that may be broader in scope and may apply regardless of payer.

Efforts to ensure that our internal operations and business arrangements with third parties comply with applicable laws and regulations involve substantial costs. Any action brought against us for violation of these or other laws or regulations, even if we successfully defend against it, could cause us to incur significant legal expenses and divert our management's attention from the operation of our business. Additionally, certain of our business practices, including our consulting and advisory board arrangements with physicians and other healthcare providers, a small number of whom may receive stock or restricted stock units, or RSUs, as compensation for services provided, may not comply with current or future corporate practice of medicine statutes, regulations, agency guidance or case law. If our operations are found to be in violation of any of the fraud and abuse laws described above or any other laws that apply to us, we may be subject to penalties, including potentially significant criminal, civil and administrative penalties, damages, fines, disgorgement, imprisonment, exclusion from participation in government healthcare programs, contractual damages, reputational harm, integrity oversight and reporting obligations, limitations to the sale of certain products or services, diminished profits and future earnings, and the curtailment or restructuring of our operations.

Data Privacy and Security

In the ordinary course of our business, we may process personal or sensitive data. Accordingly, we are, and may in the future become, subject to numerous federal, state, local and foreign laws, regulations, standards, and guidance regarding data privacy and security. Such obligations may include, without limitation, the Federal Trade Commission Act, the Telephone Consumer Protection Act of 1991, the Children's Online Privacy Protection Act of 1998, the Controlling the Assault of Non-Solicited Pornography And Marketing Act of 2003, the California Consumer Privacy Act of 2018, or CCPA, the Canadian Personal Information Protection and Electronic Documents Act, Canada's Anti-Spam Legislation, the European Union's General Data Protection Regulation 2016/679, or EU GDPR, the EU GDPR as it forms part of United Kingdom, or UK law by virtue of section 3 of the European Union (Withdrawal) Act 2018 or UK GDPR, the ePrivacy Directive, and the Payment Card Industry Data Security Standard, or PCI DSS. In addition, HIPAA, as mentioned above, imposes privacy, security and breach reporting obligations with respect to individually identifiable health information upon "covered entities" (health plans, health care clearinghouses and certain health care providers), and their respective business associates, individuals or entities that create, received, maintain or transmit protected health information in connection with providing a service for or on behalf of a covered entity. HIPAA mandates the reporting of certain breaches of health information to the U.S. Department of Health and Human Services, or HHS, affected individuals and if the breach is large enough, the media. Entities that are found to be in violation of HIPAA, including as the result of a breach of unsecured PHI, a complaint about privacy practices or an audit by HHS, may be subject to significant civil, criminal and administrative fines and penalties and/or additional reporting and oversight obligations if required to enter into a resolution agreement and corrective action plan with HHS to settle allegations of HIPAA non-compliance.

Even when HIPAA does not apply, failing to take appropriate steps to keep consumers' personal information secure may constitute unfair acts or practices in or affecting commerce in violation of Section 5(a) of the Federal Trade Commission Act, 15 U.S.C § 45(a). 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. Personally identifiable health information is considered sensitive data that merits stronger safeguards. The FTC's guidance for appropriately securing consumers' personal information is similar to what is required by the HIPAA Security Rule. In addition, certain state laws govern the privacy and security of personal information, including health information in certain circumstances, some of which are more stringent than HIPAA and many of which differ from each other in significant ways and may not have the same effect, thus complicating compliance efforts. Failure or perceived failure to comply with these laws, where applicable, can result in material adverse effects to our business, including the imposition of significant civil and/or criminal penalties and private litigation.

Numerous U.S. states have enacted comprehensive privacy laws that impose certain obligations on covered businesses, including providing specific disclosures in privacy notices and affording residents with certain rights concerning their personal data. As applicable, such rights may include the right to access, correct, or delete certain personal data, and to opt-out of certain data processing activities, such as targeted advertising, profiling, and automated decision-making. The exercise of these rights may impact our business and ability to provide our products and services. Certain states also impose stricter requirements for processing certain personal data, including sensitive information, such as conducting data privacy impact assessments. These state laws allow for statutory fines for noncompliance. For example, the CCPA, applies to personal data of consumers, business representatives, and employees who are California residents, and requires businesses to provide specific disclosures in privacy notices and honor requests of such individuals to exercise certain privacy rights. The CCPA provides for fines and allows private litigants affected by certain data breaches to recover significant statutory damages.

Outside the United States, there are an increasing number of laws and regulations governing the collection, use and processing of personal data. For example, under the EU GDPR, companies may face temporary or definitive bans on data processing and other corrective actions; fines of up to 20 million Euros under the EU GDPR, 17.5 million pounds sterling under the UK GDPR or, in each case, 4% of annual global revenue, whichever is greater; or private litigation related to processing of personal data brought by classes of data subjects or consumer protection organizations authorized at law to represent their interests.

For more information regarding risks relating to data privacy and security, see “Risk Factors – Risks Related to Our Highly Regulated Industry—We and the third parties with whom we work are subject to stringent and evolving U.S. and foreign laws, regulations, and rules, contractual obligations, industry standards, policies and other obligations related to data privacy and security. Our (or the third parties with whom we work) actual or perceived failure to comply with such obligations could lead to regulatory investigations or actions; litigation (including class claims) and mass arbitration demands; fines and penalties; disruptions of our business operations; reputational harm; loss of revenue or profits; and other adverse business consequences.”

Health Reform

In March 2010, the ACA became law. This law substantially changed the way health care is financed by both commercial payers and government payers, and significantly impacted our industry. The ACA contains a number of provisions that impacted existing state and federal healthcare programs or result in the development of new programs, including those governing enrollments in state and federal healthcare programs, reimbursement changes and fraud and abuse.

Since its enactment, there have been efforts to repeal, replace, and amend all or part of the ACA. For example, on August 16, 2022, the Inflation Reduction Act of 2022, or IRA, was signed into law, which among other things extends enhanced subsidies for individuals purchasing health insurance coverage in the ACA marketplaces through plan year 2025. The IRA also eliminates the “donut hole” under the Medicare Part D program beginning in 2025 by significantly lowering the beneficiary maximum out-of-pocket cost and establishing a new manufacturer discount program. It is unclear how any such challenges and litigation, and the healthcare reform measures of the second Trump administration will impact the ACA.

In addition, other legislative changes have been proposed and adopted since the ACA was enacted. On August 2, 2011, the Budget Control Act of 2011 was signed into law, which, among other things, reduced Medicare payments to providers by 2% per fiscal year, effective on April 1, 2013 and, due to subsequent legislative amendments to the statute, will remain in effect through 2032, unless additional Congressional action is taken.

We expect that additional state, federal, and foreign healthcare reform measures will be adopted in the future, particularly in light of the recent U.S. Presidential and Congressional elections.

Coverage and Reimbursement

The availability and extent of reimbursement by governmental and private payers is essential for most patients to be able to afford our current and future diagnostic products. Each payer makes its own decision as to whether to provide coverage for our tests, whether to enter into a contract with us and the reimbursement rate for a test.

Coverage determinations by a payer may depend on a number of factors, including but not limited to a payer’s determination that a test is appropriate, medically necessary or cost-effective. Negotiating with payers is time-consuming, and payers often insist on their standard form contracts, which may allow payers to terminate coverage on short notice, impose significant obligations on us and create additional regulatory and compliance hurdles for us. Further, when we contract with a payer as a participating provider, reimbursements by the payer are generally made pursuant to a negotiated fee schedule and are limited to only covered indications or where prior approval has been obtained. Becoming a participating provider can result in higher reimbursement amounts for covered uses of our tests and, potentially, no reimbursement for non-covered uses identified under the payer’s policies or the contract.

Although we are a participating provider with several commercial payers, some large commercial payers have issued non-coverage policies that consider tissue and liquid comprehensive genomic profile testing, including certain of our Genomics tests, as experimental or investigational.

In the United States, many significant decisions about reimbursement for new diagnostics are made by the Centers for Medicare & Medicaid Services, or CMS, which makes a national coverage determination, or NCD, as to whether and to what extent a new diagnostic will be covered and reimbursed under Medicare, although it frequently delegates this authority to local Medicare Administrative Contractors, or MACs, which may make a local coverage determination, or LCD, with respect to coverage and reimbursement. Private payers tend to follow Medicare to a substantial degree. During the year ended December 31, 2024, Medicare claims represented 26% of our clinical testing volume. Given we operate laboratories in multiple MACs and run both LDTs and an FDA-approved assay, the applicable reimbursement determination varies based on the assay being run and the locations where it is being processed. The rules and standards that CMS uses to determine reimbursement rates for our tests are frequently changing and subject to revision, which could have a material impact on our results.

For example, Medicare's NCD for NGS, first established in 2018 and subsequently updated in 2020, states that NGS oncology tests (such as our Tempus xT and Tempus xF tests), would be covered by Medicare nationally if and when: (1) performed in a CLIA-certified laboratory, (2) ordered by a treating physician, (3) the patient meets certain clinical and treatment criteria, including having recurrent, relapsed, refractory, metastatic, or advanced stages III or IV cancer, (4) the test is approved or cleared by the FDA as a companion in vitro diagnostic for an FDA approved or cleared indication for use in that patient's cancer, and (5) results are provided to the treating physician for management of the patient using a report template to specify treatment options. We believe that our xT CDX assay, which received FDA approval in April 2023, will meet the criteria for reimbursement under the NCD. In addition, effective July 1, 2024, our xT CDX assay was awarded Advanced Diagnostic Laboratory Test status by CMS. The NGS NCD also states that each MAC may provide local coverage of other NGS tests for cancer patients only when the test is performed by a CLIA-certified laboratory, ordered by a treating physician and the patient meets the same clinical and treatment criteria required of nationally covered NGS tests under the NGS NCD. An NGS typically test is not covered by Medicare when cancer patients do not have the above-noted indications for cancer under either an NCD or LCD.

National Government Services, Inc. is the local MAC that makes local coverage determinations, or LCDs, for tests conducted at our Chicago laboratory. The Local MAC has issued two LCDs related to genetic testing in cancer, each of which currently requires claims to be submitted under a single CPT code that describes the test. Because no CPT code comprehensively describes our NGS oncology tests, we have historically submitted claims using individual codes based on the cancer subtype profiled. On March 25, 2021, the Local MAC instructed us to submit our claims using a different designated CPT code and indicated that such claims would be individually reviewed. In addition to claims submitted after the March 25, 2021 guidance, on July 23, 2021, the Local MAC issued revised instructions for CPT coding, which may be applicable to our NGS oncology tests performed after the date of the revised guidance, and further updated those instructions on July 29, 2021.

On February 10, 2022, the Local MAC issued a revised LCD (L37810), and a corresponding Billing and Coding update (A56867). The increased scope of coverage provided for in the revised LCD will result in the CPT code they instructed us to begin billing in July 2021 being reimbursed at the prevailing Medicare rate for those tests which meet the revised coverage criteria. The modified LCD is effective April 1, 2022 and applies to genomic sequence analysis panel tests in the treatment of solid tumors, which primarily impacts our solid tumor assay, xT, given the modified scope of coverage in the revised LCD.

Beginning January 1, 2023, a new CPT code went into effect covering full transcriptome testing when performed separately from DNA testing. Historically, our xT assay was actually comprised of two separate and distinct procedures, DNA and RNA. Given there was not an applicable CPT code for RNA, we did not bill that test. With the introduction of the new code, we now have two separate assays, one analyzing DNA – xT and one analyzing RNA – xR that are ordered and billed for separately. We requested that the Local MAC add the new CPT code to the LCD, which they did effective January 1, 2023.

Palmetto is the MAC jurisdiction that determines reimbursement for tests conducted at our Raleigh and Atlanta laboratories through the MoIDx program. MoIDx requires laboratories to complete a technical assessment process in order to secure reimbursement for tests run at labs in its jurisdiction. Upon receiving approval in the technical assessment process, assays are assigned a z-code and a price at which MoIDx will reimburse claims. In conjunction with launching our Raleigh laboratory, we submitted a technical assessment for our xT assay in 2022 and our xF assay in 2023. We received approval on our xT assay in October 2023 and on our xF assay in March 2024.

In addition, pursuant to the regulations of CMS, we cannot bill Medicare directly for tests provided for Medicare beneficiaries in some situations. CMS adopted an exception to its laboratory date of service regulation, and if certain conditions are met, molecular testing laboratories such as us can rely on that exception to bill Medicare directly, instead of seeking payment from the hospital. If this exception is repealed or curtailed by CMS, or its laboratory date of service regulation is otherwise changed to adversely impact our ability to bill Medicare directly, our revenue could be materially reduced.

Furthermore, on September 27, 2023, the Centers for Medicare and Medicaid Services (CMS) published calendar year 2024 preliminary payment determinations for new and reconsidered codes on the Medicare clinical laboratory fee schedule (CLFS), including new codes that may apply to tests we offer through our Genomics business. In doing so, CMS rejected the recommendations from experts on the Clinical Diagnostic Laboratory Test (CDLT) Advisory Panel and recommended reimbursement rates for several new procedure codes describing genomic profiling tests that are substantially below our costs to perform them. Following a comment period, CMS revised its preliminary determination and assigned each of the new codes to gapfill—a process by which each of the individual MACs prices the codes, and the resulting median price across the MACs becomes the price on the Medicare CLFS. We are currently participating in the gapfill process with the MACs within which we operate. On May 1, 2024, CMS posted the MAC-specific payment recommendations which indicated that the codes applicable to our tests would be reimbursed at the same or a higher level than they were previously reimbursed. These recommendations were finalized in September and became effective January 1, 2024.

Some payers have implemented, or are in the process of implementing, laboratory benefit management programs, often using third-party benefit managers to manage these programs. The stated goals of these programs are to help improve the quality of outpatient laboratory services, support evidence-based guidelines for patient care and lower costs. The impact on laboratories, such as us, of active laboratory benefit management by third parties is unclear, and we expect that it would have a negative impact on our revenue in the short term. Payers may resist reimbursement for our tests in favor of less expensive tests, require pre-authorization for our tests, or impose additional pricing pressure on and substantial administrative burden for reimbursement for our tests. We expect to continue to focus substantial resources on increasing adoption of, and coverage and reimbursement for, our current tests and any future tests we may develop. We believe it may take several years to achieve broad coverage and adequate contracted reimbursement with a majority of payers for our tests. However, coverage policies and third-party reimbursement rates may change at any time. Even if favorable coverage and reimbursement status is attained for one or more of our tests, less favorable coverage policies and reimbursement rates may be implemented in the future. We cannot predict whether, under what circumstances, or at what price levels payers will cover and reimburse our tests.

Outside the United States, the reimbursement process and timelines vary significantly. Certain countries, including a number of member states of the European Union, set prices and make reimbursement decisions for diagnostic products, with limited participation from the marketing authorization or CE mark holders, or may take decisions that are unfavorable to the authorization or CE mark holder where they have participated in the process. There can be no assurance that we can achieve acceptable prices and reimbursement decisions.

Employees and Human Capital

As of December 31, 2024, we had more than 2,400 employees, of which 776 were technical and were engaged in product and engineering, and research and development. As of December 31, 2024, 1,052 employees were based at our headquarters in Chicago, Illinois, 79 employees were based in Atlanta, Georgia, and 135 employees were based in Raleigh, North Carolina. None of our employees are currently represented by a labor union or covered under a collective bargaining agreement, and we have never experienced a work stoppage. However, on February 8, 2024, the International Association of Machinists and Aerospace Workers, or the IAM, District Lodge 8, filed a Petition for Election with the National Labor Relations Board, or the NLRB, to serve as the collective bargaining representative of certain of our laboratory employees located in Chicago, Illinois. On March 6 and 7, 2024, the NLRB held an election, at which the defined collective bargaining unit voted to unionize and for the IAM to serve as the collective bargaining representative. We have begun the process of negotiating a collective bargaining agreement with the IAM. Even though we are currently unaware of other unionization efforts, it is possible that other employees may also seek to unionize. We consider our relationship with our employees to be positive.

Our human capital resources objectives include, as applicable, identifying, recruiting, retaining, incentivizing and integrating our existing and additional employees. The principal purposes of our equity and other incentive plans are to attract, retain and reward personnel through the granting of stock-based and cash-based compensation awards, in order to increase stockholder value and the success of our company by motivating such individuals to perform to the best of their abilities and achieve our objectives.

Corporate Information

We were founded by Eric Lefkowsky under the name Bioin, LLC in Delaware in August 2015. We converted to a Delaware corporation in September 2015 under the name Bioin, Inc., and later changed our name to Tempus Health, Inc. in 2015, to Tempus Labs, Inc. in 2016, and to Tempus AI, Inc. in 2023. Our principal executive offices are located at 600 West Chicago Avenue, Suite 510 Chicago, Illinois 60654, and our telephone number is (800) 976-5448. Our website address is www.tempus.com. Information contained on, or that can be accessed through, our website is not incorporated by reference into this Annual Report on Form 10-K, and you should not consider information on our website to be part hereof. We completed our IPO in June 2024, and our Class A common stock is listed on the Nasdaq Global Select Market under the symbol “TEM.”

The Tempus logo, “Tempus” and our other registered and common law trade names, trademarks and service marks are the property of Tempus AI, Inc. or our subsidiaries. Other trade names, trademarks and service marks used herein are the property of their respective owners.

Additional Information

We intend to announce material information to the public through filings with the Securities and Exchange Commission, or the SEC, on the investor relations page of our website, which is located at investors.tempus.com, press releases, public conference calls and public webcasts. The information disclosed through the foregoing channels could be deemed to be material information. As such, we encourage investors, the media, and others to follow the channels listed above and to review the information disclosed through such channels. We file electronically with the SEC, our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to these reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act. We make available on our investor relations website, free of charge, copies of these reports and other information as soon as reasonably practicable after we file such material with or furnish it to the SEC. The SEC also maintains a website that contains our SEC filings at www.sec.gov. Information found on, or accessible through these websites is not part of, and is not incorporated into, this Annual Report on Form 10-K or in any other report or document we file.

Item 1A. Risk Factors

A description of the risks and uncertainties associated with our business is set forth below. You should carefully consider the risks described below as well as the other information in this Annual Report on Form 10-K, including our consolidated financial statements and the notes thereto, and “Management’s Discussion and Analysis of Financial Condition and Results of Operations.” The occurrence of any of the events or developments described below could adversely affect our business, results of operations, financial condition, reputation, and prospects. In such an event, the market price of our Class A common stock could decline, and you may lose all or part of your investment.

Summary Risk Factors

Our business is subject to numerous risks and uncertainties, including those described more fully below in this Annual Report on Form 10-K. The following is a summary of principal risks and uncertainties that could materially adversely affect our business, financial condition, and results of operations. This summary should be read in conjunction with the rest of Item 1A. Risk Factors and should not be relied upon as an exhaustive summary of the material risks and uncertainties facing our business.

- *We have incurred significant losses since inception, we may continue to incur losses in the future, and we may not be able to generate sufficient revenue to achieve and maintain profitability.*
- *Our current or future products may not achieve or maintain sufficient commercial market acceptance.*
- *Our operating results may fluctuate significantly, which makes our future operating results difficult to predict and could cause our operating results to fall below expectations or any guidance we may provide.*
- *The success of our business depends on our continued access to, and ability to monetize, de-identified patient data.*
- *Our limited operating history and rapid growth make it difficult to evaluate our future prospects and the risks and challenges we may encounter.*

- *We may need to raise additional capital to fund our existing operations, develop our Platform, commercialize new products or expand our operations.*
- *Our AI Applications product line is nascent.*
- *Our diagnostic products, or our competitors' diagnostic products, could have defects or errors or otherwise fail to meet the expectations of patients, physicians and third-party payers; in such cases our operating results, reputation and business could suffer.*
- *If third-party payers, including commercial payers and government healthcare programs, do not provide coverage of, or adequate reimbursement for, or reverse or change their policies related to our tests, our business, financial condition and results of operations will be negatively affected.*
- *If we are unable to obtain or maintain adequate reimbursement for our Genomics product line outside of the United States, our ability to expand internationally will be compromised.*
- *Labor relations matters could have a material adverse effect on our business, reputation, prospects, results of operations and financial condition.*
- *We use AI in our products and services which may result in operational challenges, legal liability, reputational concerns and competitive risks.*
- *If we cannot compete successfully with our competitors, we may be unable to increase or sustain our revenue or to achieve and then sustain profitability.*
- *The industries in which we operate are subject to rapid change, which could make our Platform, our current products and any future products we may develop obsolete.*
- *Our existing and any future debt may affect our flexibility in operating and developing our business and our ability to satisfy our obligations.*
- *We rely on a limited number of suppliers or, in some cases, sole suppliers, for some of our laboratory instruments and materials and may not be able to find replacements or promptly transition to alternative suppliers.*
- *International expansion of our business exposes us to business, regulatory, political, operational, financial, and economic risks associated with doing business outside of the United States.*
- *We and the third parties with whom we work are subject to stringent and evolving U.S. and foreign laws, regulations, and rules, contractual obligations, industry standards, policies and other obligations related to data privacy and security. Our (or the third parties with whom we work) actual or perceived failure to comply with such obligations could lead to regulatory investigations or actions; litigation (including class claims) and mass arbitration demands; fines and penalties; disruptions of our business operations; reputational harm; loss of revenue or profits; and other adverse business consequences.*
- *We conduct business in a heavily regulated industry, and changes in regulations or violations of regulations may, directly or indirectly, reduce our revenue, adversely affect our business, financial condition and results of operations.*
- *Certain of our tests are currently marketed as LDTs, and future changes in FDA enforcement discretion for LDTs could subject our operations to much more significant regulatory requirements.*
- *If we are unable to obtain, maintain and enforce sufficient intellectual property protection for our Platform and products, or if the scope of the intellectual property protection obtained is not sufficiently broad, our competitors or other third parties could develop and commercialize products similar or identical to ours, and our ability to successfully commercialize our products may be impaired.*
- *We are and may in the future become involved in litigation and other legal proceedings alleging that we are infringing, misappropriating or otherwise violating third-party intellectual property rights, or asserting our intellectual property rights, which could be time-intensive and costly and may adversely affect our business, financial condition and results of operations.*
- *We have and may in the future acquire businesses, form joint ventures or make investments in companies or technologies that could negatively affect our operating results, distract management's attention from other business concerns, dilute our stockholders' ownership, and significantly increase our debt, costs, expenses, liabilities and risks.*

- *We are highly dependent on the services of Eric Lefkowsky and other members of our senior management team and the loss of any member of our senior management team or our inability to attract and retain highly skilled scientists, clinicians, sales representatives and business development managers could adversely affect our business, financial condition and results of operations.*
- *If our information technology systems or those third parties with whom we work or our data, are or were compromised, we could experience adverse consequences resulting from such compromise, including but not limited to regulatory investigations or actions; litigation; fines and penalties; disruptions of our business operations; reputational harm; loss of revenue or profits; loss of customers or sales; and other adverse consequences.*
- *The dual class structure of our common stock has the effect of concentrating voting control with our Chief Executive Officer, Founder and Chairman, which will limit your ability to influence the outcome of important decisions.*
- *Our stock price may be volatile, and the value of our Class A common stock may decline.*
- *We previously identified a material weakness in our internal control over financial reporting. If we fail to maintain an effective system of internal control over financial reporting, we may not be able to accurately report our financial results or prevent fraud.*
- *We depend on information technology systems, including on-premises, co-located and third-party data centers and platforms, and any interruptions of service or failures may impair and harm our business, financial condition and results of operations.*

Risks Related to Our Business and Strategy

We have incurred significant losses since inception, we may continue to incur losses in the future, and we may not be able to generate sufficient revenue to achieve and maintain profitability.

We have incurred significant losses since our inception. For the years ended December 31, 2024 and 2023, we incurred net losses of \$705.8 million and \$214.1 million, respectively. As of December 31, 2024, we had an accumulated deficit of \$2.2 billion. To date, we have financed our operations principally from the sale of stock and convertible securities, and revenue from our Genomics and Data businesses. We have devoted substantially all of our resources to the development and commercialization of our Platform and current products and to research and development activities related to Platform development and future products, including regulatory initiatives to obtain marketing approval or certification for our diagnostic tests, and sales and marketing activities for our Genomics and Data businesses. We will need to generate substantial revenue to achieve and then sustain profitability, and even if we achieve profitability, we cannot be sure that we will remain profitable for any period of time.

Our current or future products may not achieve or maintain sufficient commercial market acceptance.

We believe our commercial success is dependent upon our ability to continue to successfully market and sell our current Genomic diagnostics products to continue to grow our Data business by expanding our current relationships and developing new relationships with clinicians and pharmaceutical and biotechnology customers, and to develop and commercialize new products based on our Platform, including by expanding our Genomics product line to new disease areas and by advancing our existing and future AI Applications. Our ability to achieve and maintain sufficient commercial market acceptance of our existing and future products will depend on a number of factors, including:

- our ability to increase awareness of our Genomics and AI Applications diagnostic tests and other AI Applications, including new product offerings as they become available;
- the rate of adoption and/or endorsement of our Genomics and AI Applications diagnostic tests and AI Applications by clinicians, pharmaceutical and biotechnology companies, KOLs, and advocacy groups;
- the timing and scope of obtaining any necessary approvals or certification by regulatory authorities, including the FDA, for our diagnostic tests, any software offerings, AI Applications, or any features of our Platform, in each case, that may be subject to regulatory oversight;
- our ability to obtain positive coverage decisions for our tests from additional commercial payers and to broaden the scope of indications included in such coverage decisions;
- our ability to obtain reimbursement and expanded coverage from government payers, including Medicare or comparable foreign programs;

- our ability to increase demand for our Data business, including by expanding our database of de-identified patient information and increasing the utility of our product offerings;
- our ability to successfully expand beyond oncology into neuropsychiatry, cardiology, radiology, and other indications;
- our ability to build and maintain robust data sets with respect to patient populations in geographic regions that we may seek to enter in the future;
- the impact of our investments in Platform development, product innovation and commercial growth;
- public perception of our products, those of our competitors and the industry in which we operate, including our ability to avoid adverse publicity from defects or errors; and
- our ability to further validate our Platform through clinical research and accompanying publications.

We cannot assure that we will be successful in addressing each of these criteria or other criteria that might affect the market acceptance of our products. If we are unsuccessful in achieving and maintaining sufficient market acceptance of our products, our business, financial condition and results of operations will suffer.

Our operating results may fluctuate significantly, which makes our future operating results difficult to predict and could cause our operating results to fall below expectations or any guidance we may provide.

Our quarterly and annual operating results may fluctuate significantly, which makes it difficult for us to predict our future operating results. Because we plan to operate our business with a long-term focus, these fluctuations may be more pronounced than those experienced by other companies that operate with a shorter-term focus. These fluctuations may occur due to a variety of factors, many of which are outside of our control, including, but not limited to:

- the timing and cost of, and level of investment in, research, development, regulatory approval or certification and commercialization activities relating to our Platform and products, which may change from time to time;
- the volume and customer mix of our Genomics and AI Applications diagnostic testing, AI Applications, and other products;
- the start and completion of projects in which our Data and Services products are utilized;
- the introduction of new products or product enhancements by us or others in our industry;
- coverage and reimbursement policies with respect to our products and products that compete with our products;
- expenditures that we may incur to acquire, develop or commercialize additional products and technologies;
- changes in governmental regulations, including with respect to privacy and data security and medical device regulation, and our compliance therewith, or in the status of our regulatory approvals, certifications or applications;
- future accounting pronouncements or changes in our accounting policies;
- developments or disruptions in the business and operations of our clinical, commercial and other partners;
- the impact of natural disasters, political and economic instability, including wars (such as the armed conflicts between Russia and Ukraine and the hostilities in the Middle East), terrorism, and political unrest, epidemics or pandemics, boycotts, curtailment of trade and other business restrictions; and
- general market conditions, including high and rising inflation rates, high interest rates, government bank closures, liquidity concerns at other financial institutions, and other factors, including factors unrelated to our operating performance or the operating performance of our competitors.

Additionally, it is difficult to predict the amounts, if any, we will be able to collect for our diagnostic tests from commercial payers. We are a participating network provider in a small number of commercial payers from whom we receive reimbursement for our diagnostic tests. Payers determine the amount they are willing to reimburse us for tests. We have provided testing to patients with many disease types and indications, most of the time as a non-participating provider. Even when payers have paid a claim, they may elect at any time to review previously paid claims for overpayment against these claims. While we have not experienced significant retroactive adjustments to date, in the event of an overpayment determination, the payer may offset the amount they determine they overpaid against amounts they owe us on current claims.

We have limited leverage to dispute these retroactive adjustments and we cannot predict when, or how often, a payer might engage in these reviews. A significant amount of these offsets by one or more payers in any given quarter could have a material effect on our results of operations and cause them to fall below expectations or guidance we may provide. Due to the inherent variability and unpredictability of the reimbursement landscape, including related to the amount that payers reimburse us for any of our tests, previously recorded revenue adjustments are not indicative of future revenue adjustments from actual cash collections, which may fluctuate significantly.

In addition, the demand for our Genomics and Data and Services products will depend in part upon the research and development and clinical budgets of pharmaceutical and biotechnology customers, which are impacted by factors beyond our control, such as:

- changes in government programs (such as the National Institutes of Health) that provide funding to research institutions and companies;
- macroeconomic conditions (including any impact of unforeseen events such as the armed conflicts between Russia and Ukraine and the hostilities in the Middle East), the political climate and the impact of public health emergencies such as the COVID-19 pandemic, high and rising inflation rates, high interest rates, government closures of banks and liquidity concerns at other financial institutions;
- changes in the regulatory environment;
- differences in budgetary cycles;
- competitor products or pricing;
- market-driven pressures to consolidate operations and reduce costs; and
- market acceptance of relatively new products.

Uncertainty in the current political environment could impact our business. In addition to potential changes in government programs and the research and development and clinical budgets of our potential customers, changes in government staffing or funding levels could affect various aspects of our business. For example, the reimbursement rates we receive from government payors may experience downward pressures, and certain of our products that require government review or approval may experience delays in obtaining requisite authorizations. Conversely, the government may implement programs to accelerate the adoption of artificial intelligence within the healthcare industry, which could have a favorable impact on our operations. Given these uncertainties, it is impossible to predict how a shifting political environment may influence our operations.

Our operating results may fluctuate significantly due to reductions and delays in research and development or clinical expenditures by these customers. Further, many of our data licensing agreements allow us to deliver data to our customers over a period of time, which can span a year or longer. Revenue pursuant to our data licensing agreements is recognized upon delivery of the data to the customer, upon completion of performance obligations for related services, or ratably over time in the case of subscriptions. The actual timing of data deliveries can be based on a variety of factors, including, but not limited to, the customer's requirements and/or our technological, operational, and human capital capacity; in addition, management assesses relevant contractual terms in contracts with customers and applies significant judgment in identifying and accounting for all terms and conditions in certain contracts.

The cumulative effects of the factors discussed above could result in large fluctuations and unpredictability in our quarterly and annual operating results. As a result, comparing our operating results on a period-to-period basis may not be meaningful. Investors should not rely on our past results as an indication of our future performance.

This variability and unpredictability could also result in our failing to meet the expectations of industry or financial analysts or investors for any period. If our revenue or operating results fall below the expectations of analysts or investors or below any guidance we may provide, or if the guidance we provide is below the expectations of analysts or investors, the price of our common stock could decline substantially. Such a stock price decline could occur even when we have met any previously publicly stated guidance we may provide.

The success of our business depends on our continued access to, and ability to monetize, de-identified patient data.

Our business relies on our ability to obtain, process, monetize and distribute highly regulated data in the healthcare industry, in a manner that complies with applicable laws, regulations and contractual and technological restrictions. The data that we collect through the provision of Genomics tests and through other sources is critical to our ability to offer our Data and AI Applications products and services. Our Platform also includes proprietary software and dedicated data pipelines that create a network of healthcare institutions that supply us with complex multimodal data. Further, we rely on certain collaborations and licensing agreements to access important data. The success of our business depends on our continued access to, and ability to monetize, this internal and external de-identified patient data. As we seek to expand our business into additional disease areas and geographies, we will also need to be successful in building and maintaining sufficiently large relevant data sets and obtaining the permissions necessary to de-identify and use that data for commercial purposes.

Our ability to maintain, expand and monetize our datasets are subject to a number of factors, many of which are outside of our control. With respect to data included in our Data and AI Applications products, we rely on a combination of the statutory rights available to us as a HIPAA covered entity and as a HIPAA business associate. As a HIPAA covered entity, we utilize data generated through our provision of Genomic tests. As a HIPAA business associate, we may rely on healthcare providers to obtain the requisite consents from their patients, with whom we may have no direct contact, to use the de-identified data that we generate in the provision of our other offerings to the providers, or that we generate from the protected health information, or PHI, we obtain from providers. More broadly, the failure by us or our data suppliers and processors to obtain patient data in a compliant manner could have a harmful effect on our ability to use and disclose data which in turn could impair our functions and operations, including our ability to share data with third parties or incorporate it into our products. In addition, the use, processing and distribution of patient data may require us or our data suppliers and processors to obtain consent from third parties or follow additional laws, regulations or contractual and technological restrictions that apply to the healthcare industry. These requirements could interfere with our ability to deploy our products, prevent creation of new products, or otherwise limit data-driven activities that benefit us. Moreover, due to lack of valid notice, sufficient consents or waiver, we may be subject to claims or liability for use or disclosure of data or other information.

We are also dependent on the healthcare institutions within our network continuing to provide us with broad access to data to multimodal data to support the robustness of our Genomics tests and other offerings, as well as on maintaining our collaborations with ASCO, ONCare Alliance and similar organizations, and entering into similar collaborations with other organizations in the future, particularly as we attempt to expand into other disease areas. These third parties may have interests that diverge from our interests, including a desire to monetize their data in different ways, and there can be no assurance that we will be successful in maintaining and growing our datasets. Further, our arrangements with some of these third parties are not exclusive, which could allow such parties to provide data to our competitors, thereby adversely impacting our ability to offer differentiated products and services. Our practice of making available to providers the raw data from our Genomics testing along with corresponding clinical data we may have structured as part of providing testing also may allow those providers to use data in ways that may be harmful to our business interests.

The use, processing and distribution of patient data is also the subject of complex, interconnected and frequently changing laws and regulations in the United States and globally. We have policies and procedures in place to address the proper handling and use of data, but could face claims that our practices are insufficient, or occur in a manner not permitted under applicable laws or our agreements with or obligations to data providers, patients or other third parties. These claims or liabilities and other failures to comply with applicable requirements could subject us to unexpected costs and adversely affect our business, financial condition and results of operations. Further, any actual or perceived failure to comply with applicable privacy and data security laws could have an adverse impact on the willingness of the third parties on whom we rely for access to data to continue to provide us with such data.

The continued adoption of our products and services is dependent on a number of factors, many of which are interrelated.

Our ability to execute our growth strategy and become profitable is highly dependent on a number of factors, many of which are interrelated.

Continued adoption and use of our Genomics product line will depend on several factors, including the prices we charge for our tests, the scope of coverage and amount of reimbursement available from third-party payers for our tests, the availability of clinical data that support the value of our tests and the inclusion of our tests in industry treatment guidelines. In addition, many clinicians, hospital systems and pharmaceutical companies have existing relationships with companies that develop molecular diagnostic tests, including our competitors, and may continue to use their tests instead of ours. Despite our business development efforts, it could be difficult, expensive and/or time-consuming for healthcare providers to switch

diagnostic tests for their patients, and our tests may not be widely accepted by physicians, if at all, which could in turn hinder the growth of sales of our tests. If we are unable to achieve commercial success for our tests, our business, financial condition and results of operations would be materially and adversely affected. We are also particularly dependent on our oncology tests, which accounted for 63% of our revenue in both the years ended December 31, 2024 and 2023. We cannot assure that our oncology tests will continue to maintain or gain market acceptance, and any failure to do so would materially harm our business, financial condition and results of operations.

Continued adoption of and use of our Data and Services products will depend, in part, on our ability to maintain relationships and to enter into new relationships with pharmaceutical and biotechnology customers and provide relevant data to such customers for outcomes research, companion diagnostic development, novel target discovery and validation, among other uses. This can be difficult due to many factors, including the type of data required and our ability to deliver it to our pharmaceutical and biotechnology customers' satisfaction. Our pharmaceutical and biotechnology customers may decide to decrease or discontinue their use of our Insights product due to changes in their research and product development plans, failures in their clinical trials, financial constraints, or other circumstances outside of our control. Furthermore, pharmaceutical and biotechnology companies may decline to do business with us or decrease or discontinue their use of our data due to a strategic collaboration with any of our competitors. We invest resources in seeking to develop relationships with pharmaceutical and biotechnology companies regarding potential commercial opportunities on an ongoing basis. There can be no assurance that any of this investment will result in a commercial agreement, that the resulting relationship will be successful, or that the data we provide as part of the engagement will produce successful outcomes. If we cannot maintain our current relationships, or enter into new relationships, with pharmaceutical and biotechnology companies, our product development could be delayed and revenue and results of operations could be adversely affected.

The scope and robustness of the Data and Services and AI Applications products that we can offer our customers also depend significantly on the continued success of our Genomics product line, as the data that we collect through genomic testing is an essential component of our Data and Services and AI Applications products. Further, we believe that growth in the use of our Data and Services products will help drive awareness and adoption of our Genomics product line, which in turn will drive further growth within our Data and Services and AI Applications product lines. However, there can be no assurance that we will realize these synergies.

Our limited operating history and rapid growth make it difficult to evaluate our future prospects and the risks and challenges we may encounter.

We were founded in 2015 and have experienced rapid growth in revenue, adoption of our products and services, testing volume, size of our datasets, clinical trial matches and other metrics that we believe are important to assessing our business. In addition, we operate in highly competitive markets characterized by rapid technological advances and our business has evolved, and we expect it to continue to evolve, over time to remain competitive. Our limited operating history, evolving business, rapid growth and ambitious goals make it difficult to evaluate our future prospects and the risks and challenges we may encounter, and may increase the risk that we will not continue to grow at or near historical rates. Further, these factors may make it difficult for us to achieve our stated milestones and goals, and to accurately project the future performance of our business. For example, we may never realize the potential benefits of our technology as contemplated elsewhere in this Annual Report on Form 10-K.

If we fail to address the risks and difficulties that we face, including those described elsewhere in this "Risk Factors" section, our business, financial condition and results of operations could be adversely affected. We have encountered in the past, and will encounter in the future, risks and uncertainties frequently experienced by growing companies with limited operating histories in rapidly changing industries. If our assumptions regarding these risks and uncertainties, which we use to plan and operate our business, are incorrect or change, or if we do not address these risks successfully, our results of operations could differ materially from our expectations and our business, financial condition and results of operations could be adversely affected.

We may need to raise additional capital to fund our existing operations, develop our Platform, commercialize new products or expand our operations.

We may need to raise additional capital in the future to expand our business, meet existing obligations, pursue acquisitions or strategic investments, or take advantage of financing opportunities or for other reasons, including to:

- increase our sales and marketing efforts to drive market adoption of our current products and services, and address competitive developments;

- fund development and marketing efforts of our products under development or any other future products we may develop;
- acquire, license or invest in technologies;
- acquire or invest in complementary businesses or assets; and
- finance capital expenditures and general and administrative expenses.

Our present and future funding requirements will depend on many factors, including:

- our ability to achieve revenue growth and favorable gross profits;
- our rate of progress in establishing payer coverage and reimbursement arrangements with domestic and international commercial payers and government payers;
- the cost of expanding our laboratory operations and product offerings, including our sales and marketing efforts;
- our rate of progress in, and costs of our sales and marketing activities associated with, establishing adoption of and reimbursement for our current products, including our diagnostic tests and our data analytics products;
- the rate at which we choose to advance, rate of progress in, and costs of our research and development activities associated with, products in development;
- the effect of competing technological and market developments;
- costs related to our international expansion; and
- the potential costs of and delays in product development as a result of any existing or new regulatory oversight applicable to our products.

We have no committed sources of capital. We may seek to sell equity or convertible securities, enter into a credit facility or another form of third-party funding, or seek other debt financing. The various ways we could raise additional capital carry potential risks. If we raise funds by issuing equity or convertible securities, dilution to our stockholders could result. Any preferred equity securities issued also could provide for rights, preferences or privileges senior to those of holders of our common stock. If we raise funds by issuing debt securities, those debt securities would have rights, preferences and privileges senior to those of holders of our common stock. The terms of debt securities issued or borrowings pursuant to a credit agreement could impose significant restrictions on our operations. If we raise funds through collaborations and licensing arrangements, we might be required to relinquish significant rights to our Platform or products or grant licenses on terms that are not favorable to us. These alternatives of raising additional capital may not be available to us on acceptable or commercially reasonable terms, if at all, or in amounts sufficient to meet our needs. The failure to obtain any required future financing may require us to reduce or eliminate certain existing operations and could contribute to negative market perceptions about us or our securities.

Our AI Applications product line is nascent.

We have limited commercialized algorithms within our AI Applications product line. Revenue generated from AI Applications is reported within our Data and Services product line and was \$12.4 million and \$5.5 million for the years ended December 31, 2024 and 2023, respectively, which represents 1.8% and 1.0% of our total revenue in each period. We have a number of additional Algos in development and we may not be successful in developing and commercializing these or future Algos, or in attaining our other development targets. Further, the scope and robustness of the AI Applications that we can offer our customers depend significantly on the continued success of our Genomics product line and access to third-party data, of which there can be no assurance. We also cannot accurately estimate how our future AI Applications will be priced, whether reimbursement can be obtained or whether we will generate any revenue from such AI Applications. Further, the use of diagnostics that are entirely algorithmic in nature is novel and today represents only a small proportion of the diagnostics market. The use of algorithmic diagnostics may also be subject to existing and entirely new regulations that may substantially impact their adoption, use, reimbursement and ongoing viability. While we believe AI Applications represent a significant long-term opportunity for us, there can be no assurances that a robust and sustained market for such diagnostics will develop or that we will successfully compete in any such market.

New product development and commercialization involve a lengthy and complex process and we may be unable to develop or commercialize new products on a timely basis, or at all.

Products that are under development have taken time and considerable resources to develop, and we may not be able to complete the development and commercialization of such products on a timely basis, or at all.

Before we can commercialize any new Genomics or AI Applications diagnostic products, we will need to expend significant funds in order to:

- conduct substantial research and development, including validation studies and, in some cases, clinical trials;
- further develop and scale our laboratory or algorithmic processes to accommodate diagnostic tests in additional disease areas; and
- further develop and scale our infrastructure to be able to analyze increasingly large amounts of data.

Our diagnostic product development process involves a high degree of risk, and product development efforts may fail for many reasons, including:

- failure of the diagnostic product to perform as expected, including defects and errors;
- lack of validation data or validation activities that subsequently may be challenged or questioned; or
- failure to demonstrate the clinical utility of the diagnostic test.

Expanding the offerings of our Data business is also a speculative and risky endeavor and may require us to:

- acquire additional access to patient healthcare information that is relevant to the products we offer;
- correctly identify customer needs and preferences and predict future needs and preferences;
- allocate our research and development funding to areas with higher growth prospects; and
- anticipate and respond to our competitors' development of new products and technological innovations.

Our Platform development plan involves using data and analytical insights generated from our current products to foster research and development in our future products. However, if we are unable to generate additional or compatible data and insights, then we may not be able to advance our products under development as quickly, or at all, or without significant additional investment.

As we develop our products, we have made and will have to make significant investments in Platform development, marketing and selling resources, which could adversely affect our future cash flows. We may also rely on third parties to develop new products that we may license and include in our overall offering, particularly with respect to our AI Applications business, and we may exert limited or no control over such development efforts.

In addition, in our development and commercialization plans for our business lines, we may forego other opportunities that may provide greater revenue or be more profitable. For example, while we expect to provide diagnostic and data technologies to pharmaceutical and biotechnology companies (including companies in which our Chief Executive Officer, Founder, and Chairman, Eric Lefkofsky, or our other executive officers, directors or significant stockholders may have significant or controlling voting and economic interests) developing therapeutics for various diseases, including cancers, we do not currently expect to conduct development of therapeutics ourselves. As a result, even if our development efforts result in commercially viable products, our business and results of operations could underperform in comparison to our customers and competitors.

We may not be successful in updating or otherwise enhancing our Platform and products.

We have developed multiple genomics diagnostics tests across oncology, infectious diseases, and neuropsychiatry, as well as algorithmic diagnostic tests across oncology and cardiology. A major part of our strategy is bringing new high-value enhancements to our customers through updates to our Platform and existing products, which may include expanding our existing products with additional features, applications and data modalities. We expect to make significant investments to advance these efforts.

Enhancing our Platform and products is a speculative and risky endeavor. Features, applications and data modalities that initially show promise may fail to achieve the desired results or may not achieve acceptable levels of analytical accuracy or utility. We may need to alter our products in development and repeat studies before we identify a potentially successful update. Product development is expensive, may take years to complete and can have uncertain outcomes. Failure can occur at any stage of the development. Even if we confirm that our products can be successfully updated for additional features, applications and data modalities, those features, applications and data modalities may be limited in scope to only some diseases, disease segments, patient markets or geographies. If, after development, an updated product appears successful, we may, depending on the nature of the update, need to obtain FDA's, Notified Bodies' and other regulatory bodies' clearances, authorizations, certifications or approvals before we can market the updated product.

The FDA's and Notified Bodies' clearance, authorization, approval or certification pathways are likely to require significant time and expenditures. The FDA, or other applicable regulatory authority or Notified Bodies may not clear, authorize, certify or approve any product update we develop and may even change the applicable regulations or the application of those regulations in ways that would impact our existing products or services, including our Platform. Even if we develop a product update that receives regulatory clearance, certification, authorization or approval, we or our collaborators would need to commit substantial resources to commercialize, sell and market the updated product, which may never achieve significant market acceptance among various stakeholders and be commercially successful.

In addition, we generally sell our products in industries that are characterized by rapid technological changes, frequent new product introductions and changing industry standards. If we do not develop Platform and product enhancements based on technological innovation on a timely basis, our Platform and products may become obsolete over time and our financial and competitive position will suffer. Our success will depend on several factors, including our ability to:

- correctly identify customer needs and preferences and predict future needs and preferences;
- allocate our research and development funding to areas with higher growth prospects;
- anticipate and respond to our competitors' development of new products and technological innovations;
- innovate and develop new technologies and applications, and acquire or obtain rights to third-party technologies that may have valuable applications in the markets we serve;
- successfully develop and commercialize new technologies and applications in a timely manner; and
- convince customers to adopt new technologies and applications.

The expenses or losses associated with unsuccessful expansion of our Platform could adversely affect our business, financial condition and results of operations.

If we are not successful in leveraging our Platform to identify, develop and commercialize additional genomic and algorithmic tests, our ability to expand our business and achieve our strategic objectives would be impaired.

A key element of our strategy is to leverage our Platform to identify, develop and potentially commercialize genomic and algorithmic tests beyond our current portfolio to diagnose various types of diseases. Identifying new genomic and algorithmic tests requires substantial technical, financial and human resources, whether or not any genomic or algorithmic tests are ultimately developed and commercialized. We may pursue what we believe is a promising opportunity to leverage our Platform only to discover that certain of our risk or resource allocation decisions were incorrect or insufficient, or that individual genomic or algorithmic tests have limitations that were previously unknown or underappreciated.

Our strategy of pursuing the value of our Platform to develop genomic and algorithmic tests over a long time horizon and across a broad array of human diseases may not be effective. In the event that material decisions in any of these areas turn out to be incorrect or sub-optimal, we may experience a material adverse impact on our business and ability to fund our operations, and we may never realize what we believe is the potential of our Platform for developing and commercializing genomic and algorithmic tests.

If our existing and new products fail to achieve and sustain sufficient scientific acceptance, we will not generate expected revenue and our prospects may be harmed.

The life sciences scientific community is comprised of a small number of early adopters and key opinion leaders who significantly influence the rest of the community. The success of life sciences products is due, in large part, to acceptance by the scientific community and their adoption of certain products as best practice in the applicable field of research. The current

system of academic and scientific research views publishing in a peer-reviewed journal as a measure of success. In such journal publications, the researchers will describe not only their discoveries but also the methods and typically the products used to fuel such discoveries. Mentions in peer-reviewed journal publications is a good barometer for the general acceptance of our products as best practices. Ensuring that early adopters and key opinion leaders publish research involving the use of our products is critical to ensuring our products gain widespread acceptance and market growth. Continuing to maintain good relationships with such key opinion leaders is vital to growing our market. The number of times our products were mentioned in peer-reviewed publications has increased significantly in recent years. As of December 31, 2024, our products have been mentioned in 163 peer-reviewed articles published in major journals, including 120 that were Tempus-authored. We cannot assure investors, however, that our products will continue to be mentioned in peer-reviewed articles with any frequency or that any new products that we introduce in the future will be mentioned in peer-reviewed articles. In addition, self-authored journal publications that mention our products may present an actual, potential or perceived conflict of interest and, therefore, the number of publications in which our products are mentioned may not be indicative of the level of acceptance of our products. If too few researchers describe the use of our products, too many researchers shift to a competing product and publish research outlining their use of that product or too many researchers negatively describe the use or usability of our products in publications, it may drive existing and potential customers away from our products, which could harm our operating results. Any decrease in the frequency at which our products are mentioned in peer-reviewed journals, or a decline in the quality of such publications, may negatively impact our prospects.

Our diagnostic products, or our competitors' diagnostic products, could have defects or errors or otherwise fail to meet the expectations of patients, physicians and third-party payers; in such cases our operating results, reputation and business could suffer.

The success of our Genomics and AI Applications products depends in part on patients', physicians' and third-party payers' confidence that our Platform can provide reliable, high-quality intelligent diagnostics that will improve clinical outcomes and lower healthcare costs, as well as our ability to comply with applicable privacy and data security requirements. We believe that patients, physicians and third-party payers are likely to be particularly sensitive to our use of data, as well as product defects and errors in the use of our products, including if our products fail to detect genomic alterations or other clinical relevant information with high accuracy from samples, if we fail to list or inaccurately include certain treatment options and available clinical trials in our test reports, or if we fail to comply with applicable privacy and data security laws, and there can be no guarantee that we will be successful in this regard. Furthermore, if our competitors' diagnostic products do not perform to expectations or if they fail to comply with applicable laws and regulations, it may result in lower confidence in us as well. As a result, the failure of our diagnostic products or our competitors' diagnostic products to perform as expected, or failure by us or our competitors to comply with applicable laws and regulations, could significantly impair our operating results and our reputation. In addition, we may be subject to legal claims arising from any such failures, including claims that defects or errors in our diagnostic products led to injury or death. Confidence in us, as well as the strength of our brand and reputation, could also be eroded by perceived failures by us or our competitors, even absent any evidence of failure or wrongdoing.

If we are unable to support demand for our current and future Genomics product line, including ensuring that we have adequate capacity to meet increased demand, or we are unable to successfully manage our anticipated growth, our business could suffer.

As the volume of our Genomics product line sales grows, we will need to continue to increase our workflow capacity for sample intake, customer service, billing and general process improvements, expand our internal quality assurance program and extend our Platform to support comprehensive genomic analysis at a larger scale within expected turnaround times. We will need additional certified laboratory scientists and other scientific and technical personnel to process higher volumes of our Genomics tests. Portions of our process are not automated and will require additional personnel to scale. We will also need to purchase additional equipment, some of which can take several months or more to procure, set up and validate, and increase our software and computing capacity to meet increased demand. There can be no assurance that any of these increases in scale, expansion of personnel, equipment, software and computing capacities or process enhancements will be successfully implemented, if at all, or that we will have adequate space in our laboratory facility or be able to secure additional facility space to accommodate such required expansion.

As we commercialize additional Genomics products, we will need to incorporate new equipment, implement new technology systems and laboratory processes, and hire new personnel with different qualifications. Failure to manage this growth or transition could result in turnaround time delays, higher product costs, declining product quality, deteriorating customer service and slower responses to competitive challenges. A failure in any one of these areas could make it difficult for us to meet market expectations for our products and could damage our reputation and the prospects for our business.

Our ability to attract and retain candidates to support the expansion of our Genomics and other products may be influenced by factors outside our control, or factors that we can control but which we fail to execute. For example, global labor shortages, our compensation and benefits offerings, attempts at unionization by our employees, and other factors may impact our ability to recruit, hire, train, and retain employees, which will further impact our ability to meet our growth and expansion goals.

In addition, our ability to manage our growth properly will require us to continue to improve our operational, financial and management controls, as well as our reporting systems and procedures. The time and resources required to implement these new systems and procedures is uncertain and could be demanding, and failure to complete this in a timely and efficient manner could adversely affect our business, financial condition and results of operations.

If third-party payers, including commercial payers and government healthcare programs, do not provide coverage of, or adequate reimbursement for, or reverse or change their policies related to our tests, our business, financial condition and results of operations will be negatively affected.

As of December 31, 2024, we had received payment on approximately 55% of our clinical oncology next generation sequencing, or NGS, tests across all payers performed from January 1, 2022 through December 31, 2023. We calculated this metric on a trailing basis based on payer adjudication timing. However, we continued to perform our NGS tests through December 31, 2024. For the years ended December 31, 2024 and 2023, our average reimbursement for NGS tests in oncology was approximately \$1,510 and \$1,450, respectively. In addition, we receive a substantial portion of our diagnostic revenue from a limited number of third-party commercial payers, most of which have not contracted with us to be a participating provider. We also receive reimbursement from Medicare for claims submitted with respect to our various diagnostic tests. Approximately 26% of our clinical tests were for Medicare beneficiaries in both the years ended December 31, 2024 and 2023. Our revenue and commercial success depend on achieving coverage and reimbursement for our tests from payers, including both commercial and government payers. If payers do not provide coverage of, or do not provide adequate reimbursement for our tests, we may need to seek payment from the patient, which may adversely affect demand for our tests.

In addition, because our Genomics and AI Applications diagnostic tests represent new approaches to the diagnosis of diseases, we cannot accurately estimate how they would be priced, whether reimbursement could be obtained or any potential revenue generated. Coverage determinations by a payer may depend on a number of factors, including but not limited to a payer's determination that a test is appropriate, medically necessary or cost-effective. If we are unable to provide payers with sufficient evidence of the clinical utility and validity of our test, they may not provide coverage, may provide limited coverage or may terminate coverage, which will adversely affect our business, financial condition and results of operations. To the extent that more competitors enter our markets, the availability of coverage and the reimbursement rate for our tests may decrease as we encounter pricing pressure from our competitors or as payers decide based on other factors to lower the reimbursement rate for our tests.

Each payer makes its own decision as to whether to provide coverage for our tests, whether to enter into a contract with us and the reimbursement rate for a test. Negotiating with payers is time-consuming, and payers often insist on their standard form contracts, which may allow payers to terminate coverage on short notice, impose significant obligations on us and create additional regulatory and compliance hurdles for us. There can be no guarantee that a payer will provide adequate coverage or reimbursement for our tests or that we can reach an agreement with the payer on reasonable terms without being subject to additional regulatory and compliance risks. In cases where there is no coverage, or we do not have a contracted rate for reimbursement with the payer, the patient is typically responsible for a greater share of the cost of the test, which may result in delay of revenue, increase collection costs or decrease the likelihood of collection. We maintain a financial assistance program under which we assess patient financial need and offer discounted or no-cost tests to certain patients who meet the financial and other eligibility criteria of the program. This may result in scrutiny by payers of our financial assistance program and could result in recoupment actions or termination of coverage of our tests.

Our claims for reimbursement have in the past been denied and may again in the future be denied, and we have needed, and again may need, to appeal such denials in order to get paid. Such appeals may not result in payment. Payers may perform audits of historically paid claims and attempt to recoup funds years after the funds were initially distributed if the payers believe the funds were paid in error or determine that our tests were medically unnecessary. If a payer's audit of our claims results in a negative finding, and we are unable to reverse the finding through appeal, any subsequent recoupment could result in a material adverse effect on our revenue. Additionally, in some cases commercial payers for whom we are not a participating provider may elect at any time to review claims previously paid and determine the amount they paid was excessive. In these situations, the payer typically notifies us of its decision and then offsets the amount it determines to be overpaid against amounts it owes us on current claims. We do not have a mechanism to dispute these retroactive adjustments, and we cannot predict when, or how often, a payer might engage in these reviews, as historic success and payments are not indicative of future success of and payments from such appeals.

Our efforts to become a participating provider of a number of commercial payers may not be successful. When we contract with a payer as a participating provider, reimbursements by the payer are generally made pursuant to a negotiated fee schedule and are limited to only covered indications or where prior approval has been obtained.

Although we are a participating provider with several commercial payers, some large commercial payers have issued non-coverage policies that consider tissue and liquid comprehensive genomic profile testing, including certain of our Genomics tests, as experimental or investigational. If we are not successful in obtaining coverage from such payers, or if other payers issue similar non-coverage policies, our business, financial condition and results of operations could be materially and adversely affected.

Coverage and reimbursement are ever changing, and we are not in control of how our competitors' coverage and pricing strategies are established. Some of our competitors have widespread brand recognition and substantially greater financial and technical resources and development, production and marketing capabilities than we do. Others may develop lower-priced, less complex tests that payers and healthcare professionals could view as functionally equivalent to our products, which could force us to lower the list price of our tests and impact our operating margins and our ability to achieve and maintain profitability. Payers may compare our products to our competitors and utilize them as precedents, which may impact our coverage and reimbursement. In addition, technological innovations that result in the creation of enhanced diagnostic tools that are more effective than ours may enable other clinical laboratories, hospitals, medical personnel or medical providers to provide specialized diagnostic tests similar to ours in a more patient-friendly, efficient or cost-effective manner than is currently possible.

In the United States, many significant decisions about reimbursement for new diagnostics are made by the Centers for Medicare & Medicaid Services, or CMS, which makes a national coverage determination, or NCD, as to whether and to what extent a new diagnostic will be covered and reimbursed under Medicare, although it frequently delegates this authority to local Medicare Administrative Contractors, or MACs, which may make a local coverage determination, or LCD, with respect to coverage and reimbursement. Private payers tend to follow Medicare to a substantial degree. During the year ended December 31, 2024, Medicare claims represented 26% of our clinical testing volume. Given we operate laboratories in multiple MACs and run both LDTs and an FDA-approved assay, the applicable reimbursement determination varies based on the assay being run and the locations where it is being processed. The rules and standards that CMS uses to determine reimbursement rates for our tests are frequently changing and subject to revision, which could have a material impact on our results.

For example, Medicare's NCD for NGS first established in 2018 and subsequently updated in 2020, states that NGS oncology tests (such as our Tempus|xT and Tempus|xF tests), would be covered by Medicare nationally if and when: (1) performed in a Clinical Laboratory Improvement Amendments, or CLIA, certified laboratory, (2) ordered by a treating physician, (3) the patient meets certain clinical and treatment criteria, including having recurrent, relapsed, refractory, metastatic, or advanced stages III or IV cancer, (4) the test is approved or cleared by the FDA as a companion in vitro diagnostic for an FDA approved or cleared indication for use in that patient's cancer, and (5) results are provided to the treating physician for management of the patient using a report template to specify treatment options. We believe that our xT CDX assay, which received FDA approval in April 2023, will meet the criteria for reimbursement under the NCD. In addition, effective July 1, 2024, our xT CDX assay was awarded Advanced Diagnostic Laboratory Test status by CMS. The NGS NCD also states that each MAC may provide local coverage of other next-generation sequencing tests for cancer patients only when the test is performed by a CLIA-certified laboratory, ordered by a treating physician and the patient meets the same clinical and treatment criteria required of nationally covered next-generation sequencing tests under the NGS NCD. An NGS test is typically not covered by Medicare when cancer patients do not have the above-noted indications for cancer under either an NCD or LCD.

National Government Services, Inc. is the local MAC that makes local coverage determinations, or LCDs, for tests conducted at our Chicago laboratory. The Local MAC has issued two LCDs related to genetic testing in cancer, each of which currently requires claims to be submitted under a single current procedural terminology, or CPT, code that describes the test. Because no CPT code comprehensively describes our NGS oncology tests, we have historically submitted claims using individual codes based on the cancer subtype profiled. On March 25, 2021, the Local MAC instructed us to submit our claims using a different designated CPT code and indicated that such claims would be individually reviewed. Subsequently, on July 23, 2021, the Local MAC issued revised instructions for CPT coding and further updated those instructions on July 29, 2021.

On February 10, 2022, the Local MAC issued a revised LCD (L37810), and a corresponding Billing and Coding update (A56867). The increased scope of coverage provided for in the revised LCD will result in the CPT code they instructed us to begin billing in July 2021 being reimbursed at the prevailing Medicare rate for those tests which meet the revised coverage criteria. The modified LCD is effective April 1, 2022 and applies to genomic sequence analysis panel tests in the treatment of solid tumors, which primarily impacts our solid tumor assay, xT, given the modified scope of coverage in the revised LCD.

Beginning January 1, 2023, a new CPT code went into effect covering full transcriptome testing when performed separately from DNA testing. Historically, our xT assay was actually comprised of two separate and distinct procedures, DNA and RNA. Given there was not an applicable CPT code for RNA, we did not bill that test. With the introduction of the new code, we now have two separate assays, one analyzing DNA – xT and one analyzing RNA – xR that are ordered and billed for separately. We requested that the Local MAC add the new CPT code to the LCD, which they did effective January 1, 2023.

Palmetto is the MAC jurisdiction that determines reimbursement for tests conducted at our Raleigh and Atlanta laboratories through the MoIDx program. MoIDx requires laboratories to complete a technical assessment process in order to secure reimbursement for tests run at labs in its jurisdiction. Upon receiving approval in the technical assessment process, assays are assigned a z-code and a price at which MoIDx will reimburse claims. In conjunction with launching our Raleigh laboratory, we submitted a technical assessment for our xT assay in 2022 and our xF assay in 2023. We received approval on our xT assay in October 2023 and on our xF assay in March 2024.

In addition, pursuant to the regulations of CMS, we cannot bill Medicare directly for tests provided for Medicare beneficiaries in some situations. CMS adopted an exception to its laboratory date of service regulation, and if certain conditions are met, molecular testing laboratories such as us can rely on that exception to bill Medicare directly, instead of seeking payment from the hospital. If this exception is repealed or curtailed by CMS, or its laboratory date of service regulation is otherwise changed to adversely impact our ability to bill Medicare directly, our revenue could be materially reduced.

Furthermore, on September 27, 2023, the Centers for Medicare and Medicaid Services (CMS) published calendar year 2024 preliminary payment determinations for new and reconsidered codes on the Medicare clinical laboratory fee schedule (CLFS), including new codes that may apply to tests we offer through our Genomics business. In doing so, CMS rejected the recommendations from experts on the Clinical Diagnostic Laboratory Test (CDLT) Advisory Panel and recommended reimbursement rates for several new procedure codes describing genomic profiling tests that are substantially below our costs to perform them. Following a comment period, CMS revised its preliminary determination and assigned each of the new codes to gapfill – a process by which each of the individual MACs prices the codes and the resulting median price across the MACs becomes the price on the Medicare CLFS. We are currently participating in the gapfill process with the MACs with which we operate. On May 1, 2024, CMS posted the MAC-specific payment recommendations which indicated that the codes applicable to our tests would be reimbursed at the same or a higher level than they were previously reimbursed. These recommendations were finalized in September and became effective January 1, 2024.

Some payers have implemented, or are in the process of implementing, laboratory benefit management programs, often using third-party benefit managers to manage these programs. The stated goals of these programs are to help improve the quality of outpatient laboratory services, support evidence-based guidelines for patient care and lower costs. The impact on laboratories, such as us, of active laboratory benefit management by third parties is unclear, and we expect that it would have a negative impact on our revenue in the short term. Payers may resist reimbursement for our tests in favor of less expensive tests, require pre-authorization for our tests, or impose additional pricing pressure on and substantial administrative burden for reimbursement for our tests. We expect to continue to focus substantial resources on increasing adoption of, and coverage and reimbursement for, our current tests and any future tests we may develop. We believe it may take several years to achieve broad coverage and adequate contracted reimbursement with a majority of payers for our tests. However, coverage policies and third-party reimbursement rates may change at any time. Even if favorable coverage and reimbursement status is attained for one or more of our tests, less favorable coverage policies and reimbursement rates may be implemented in the future. We cannot predict whether, under what circumstances, or at what price levels payers will cover and reimburse our tests. If we fail to establish and maintain broad adoption of, and coverage and reimbursement for, our tests, our ability to generate revenue could be harmed and our business, financial condition and results of operations could suffer.

If we are unable to obtain or maintain adequate reimbursement for our Genomics product line outside of the United States, our ability to expand internationally will be compromised.

A substantial portion of our Genomics product line revenues come from third-party payer reimbursement. In many countries outside of the United States, reimbursement systems vary significantly by country and by region within some countries, and reimbursement approvals must be obtained on a country-by-country basis and various coverage, pricing and reimbursement approvals are required for our tests to be available to patients in significant volume. In the EU some countries require the completion of additional studies that compare the cost-effectiveness of a particular medical device candidate to currently available therapies. This Health Technology Assessment, or HTA process, which is currently governed by the national laws of the individual EU Member States, is the procedure according to which the assessment of the public health impact, therapeutic impact, and the economic and societal impact of use of a given medical device in the national healthcare

systems of the individual country is conducted. The outcome of HTA regarding specific medical device will often influence the pricing and reimbursement status granted to these products by the competent authorities of individual EU Member States. We expect that it will take several years to establish broad coverage and reimbursement for our tests with payers in countries outside of the United States, and our efforts may not be successful.

Even if public or private reimbursement is obtained, it may cover competing tests, or the reimbursement may be limited to a subset of the eligible patient population or conditioned upon local performance of the tests or other requirements we may have difficulty satisfying.

Reimbursement levels outside of the United States may vary considerably from the domestic reimbursement amounts we receive. We may also be negatively affected by the financial instability of, and austerity measures implemented by, several countries in the European Union, or EU, and elsewhere.

Labor relations matters could have a material adverse effect on our business, reputation, prospects, results of operations and financial condition.

On February 8, 2024, the International Association of Machinists and Aerospace Workers, or IAM, District Lodge 8, filed a Petition for Election with the National Labor Relations Board, or the NLRB, to serve as the collective bargaining representative of certain of our laboratory employees located in Chicago, Illinois. On March 6 and 7, 2024, the NLRB held an election, at which the defined collective bargaining unit voted to unionize and for the IAM to serve as the collective bargaining representative. We have begun the process of negotiating a collective bargaining agreement with the IAM. We are unable to predict whether we will be successful in reaching a collective bargaining agreement, or the incremental cost and expense that may result from such efforts. In addition, to the extent we are unsuccessful, or if such efforts take longer than anticipated, impacted employees may threaten and/or engage in work stoppages and strikes, and our labor costs may continue to increase as a result. Even though we are currently unaware of other unionization efforts, it is possible that other employees may also seek to unionize. The unavailability of laboratory staff, or our inability to control labor costs related to these matters and future efforts to unionize, could have a material adverse effect on our business, reputation, prospects, results of operations and financial condition.

We use AI in our products and services which may result in operational challenges, legal liability, reputational concerns and competitive risks.

AI is enabled by or integrated into our Platform and, as a result, our diagnostic and data products, and is therefore a significant element of our current business and our future strategy. As with many developing technologies, AI presents risks and challenges that could affect its further development, adoption, and use, and therefore our business. Many known and unknown risks to AI exist. Some of the currently known risks include accuracy, bias, toxicity, intellectual property infringement or misappropriation, data privacy and cybersecurity and data provenance. For example, our development and use of AI may result in the incorporation of third-party data, including personal, proprietary or confidential data, into our AI. If we do not have sufficient rights to use the data on which AI relies, we may incur liability through the violation of such laws, third-party privacy or other rights or contracts to which we are a party.

Additionally, regulation in the AI space is constantly changing, and may make it difficult to continue using our AI approach to diagnostics and data analysis. AI is the subject of evolving review by various U.S. governmental and regulatory agencies, including the SEC and the Federal Trade Commission, or the FTC, and various U.S. states and other foreign jurisdictions are applying, or are considering applying, their cybersecurity and data protection laws to AI, particularly generative AI, and/or are considering general legal frameworks on AI (such as the European Union's Artificial Intelligence Act, or the AI Act, which took effect on August 1, 2024, and provides for administrative fines of up to 35 million Euros or 7% of a company's total worldwide annual turnover for the preceding financial year, whichever is the greater). In addition, the use and deployment of AI presents complexities and challenges with respect to compliance with applicable laws and regulations, particularly because we are both a technology company and a healthcare provider of diagnostic testing services. Life sciences companies may underwrite or fund, in part, the development of AI algorithms, which may require us to disclose applicable funding sources and which may, as a result, slow the adoption of such technologies. Further, to the extent the output of an algorithm we develop or deploy recommends, directly or indirectly, the potential ordering of a product or service reimbursable by a federal healthcare program, we may encounter enforcement challenges even when such recommendations are based on objective clinical guidelines and criteria. If any such event were to occur, it could have a materially adverse impact on our business operations and reputation.

Additionally, algorithms may be flawed or biased, and datasets may be insufficient, of poor quality or contain biased information. Overcoming technical obstacles and correcting defects or errors could prove to be impossible or impracticable, and the costs incurred may be substantial and adversely affect our results of operations. If the diagnoses, determinations, recommendations, forecasts or analyses that our Platform's AI applications assist in producing are deficient or inaccurate, we could be subjected to competitive harm, potential legal liability and brand or reputational harm. Further, content generated by AI may be offensive, biased, or harmful, or violate current or future laws and regulations, and our reliance on AI could pose ethical concerns and lead to a lack of human oversight and control.

Inappropriate or controversial data practices by data scientists, engineers and end-users of our or our competitors' products could also impair the acceptance of AI products. Though our business practices are designed to mitigate many of these risks, if we enable or offer AI products that are controversial because of their purported or real impact on human rights, privacy, employment, or other social issues, we may experience brand or reputational harm.

Our investments in deploying AI technologies may be substantial and may be more expensive than anticipated. If our Platform does not function reliably, fails to meet expectations in terms of performance, or cannot be fully utilized due to increasing regulation or reputational concerns, we may be unable to provide such services, our customers may stop using our products, or our competitors may incorporate AI technology into their products or services more successfully than we do, all of which may impair our ability to effectively compete in the market.

We understand that the terms "AI," "Machine Learning," "Generative AI," "Large Language Models" and other similar terms may mean different things to different people. Accordingly, when we use those terms, we ascribe to them their broadest, commonly accepted meanings. For example, AI is a scientific field that allows computer software to perform human-like intelligence tasks. At its core, AI is simply the sophisticated application of mathematics to help machines perform tasks similar to, or better than, humans. AI is an umbrella term that encompasses many other subfields and technologies, including those listed above and described below:

- Machine Learning is a type of AI where the computer software is tasked with learning without being explicitly programmed. Instead, the software learns and adapts through a combination of instruction from humans and self-experimentation.
- Generative AI is a type of AI that can take different types of inputs (such as text, image, audio, video, code, etc.) and generate new content using a variety of different modalities and based on a sophisticated and advanced set of rules.
- Large Language Models are algorithms that can recognize, summarize, translate, predict, answer questions about, and generate content using very large datasets, such as our own multimodal clinical- molecular database.
- Neural Networks are a type of machine learning that teach computers to process data in a way that is inspired by the human brain. Neural networks use interconnected nodes or neurons, much in the same way the human brain does.

Our use of generative AI tools may pose particular risks to our proprietary software and systems and subject us to legal liability.

We use generative AI tools in our business and expect to use generative AI tools in the future. Using generative AI tools to produce content that can be indistinguishable from that generated by humans is a relatively novel development, with many of the benefits, risks and liabilities still unknown. Recent decisions of the U.S. Copyright Office suggest that we would not be able to claim copyright ownership in any source code, text, images, or other materials that we develop through use of generative AI tools, and the availability of such protections in other countries is unclear. As a result, we could have no remedy if third parties reused those same materials, or similar materials also generated by AI tools.

We face and expect to continue to face allegations, and we may face claims regarding such allegations, from third parties of infringement of their intellectual property rights, or mandatory compliance with open source software or other license terms, with respect to software, or other materials or content we believe to be available for use, and not subject to license terms or other third-party proprietary rights. We could also be subject to claims from providers of generative AI tools if, for example, we use any of the generated materials in a manner inconsistent with their terms of use. Any of these claims could result in legal proceedings and could require us to purchase a costly license, comply with the requirements of open source software license terms, or limit or cease using the implicated software, or other materials or content unless and until we can re-engineer such software, materials, or content to avoid infringement or change the use of, or remove, the implicated third-party materials, which could reduce or eliminate the value of our technologies and services. Our use of generative AI tools may also present additional security risks because the generated source code may have been modeled from publicly

available code, or otherwise not subject to all of our standard internal controls, which may make it easier for hackers and other third parties to determine how to breach our website and systems that rely on the code. Any of these risks could be difficult to eliminate or manage, and, if not addressed, could have a material adverse effect on our business, results of operations, financial condition and future prospects.

We may experience challenges with the acquisition, development, enhancement or deployment of technology necessary for our businesses.

Our Platform requires sophisticated computer systems and software in order to accurately and efficiently capture, service and process increasing volumes of health data, in particular a growing number of genomic profiles generated by our customers through various NGS test kits, sequencers and sample materials from different manufacturers. Some of the technologies are changing rapidly and we must continue to adapt to these changes in a timely and effective manner at an acceptable cost. There can be no assurance that we will be able to develop, acquire, enhance, deploy or integrate new technologies, including technologies needed to integrate genomics data into our Platform, that these new technologies will be effective and efficient, will meet our needs or achieve our expected goals or that we will be able to do so as quickly or cost effectively as our competitors.

If we cannot compete successfully with our competitors, we may be unable to increase or sustain our revenue or to achieve and then sustain profitability.

Growing understanding of the importance of biomarkers linked with therapy selection and response is leading to more companies offering products in genomic testing, including NGS diagnostics and PCR profiling. In addition, there are a number of healthcare technology companies providing data analysis products, including AI-driven data platforms and diagnostic products.

Our competitors with respect to our Genomics products include certain diagnostics companies, such as Foundation Medicine, Inc., which was acquired by Roche Holdings, Inc., Caris Life Sciences, Guardant Health, Inc., Neogenomics, ResolutionBio, which was acquired by Agilent, and Natera, Inc., among others, with respect to our currently marketed precision oncology tests, and legacy diagnostic laboratories, such as Quest and LabCorp. In addition, our competitors for our pharmacogenetic test in neuropsychiatry include Myriad Genetics, Inc. and Genomind, Inc.

Our competitors with respect to our Data and Services products include Flatiron Health, Inc., IQVIA Holdings Inc., and ConcertAI, among others. Furthermore, our Data and Services products also face competition from CROs, such as Fortrea, ICON, Syneos, PPD, and others, who provide data and clinical trial matching services to pharmaceutical and biotechnology companies.

Our competitors with respect to our AI Applications products include Roche Holdings, Inc., Caris Life Sciences, Guardant Health, Inc., Illumina, Inc., and others, with respect to our TO test, and Myriad Genetics, Inc., Caris Life Sciences, and others, with respect to our HRD test. We may also compete with companies developing or commercializing algorithm-based diagnostics using a variety of different data modalities, including digital pathology companies such as PathAI, Inc. and PaigeAI. In cardiology, we believe our competitors may include HeartFlow Inc., Anumana, Inc., and Eko Devices, Inc. In addition, we are aware that academic medical centers may be developing their own AI Applications and may decide to enter this market.

Some of our competitors and potential competitors may have longer operating histories; larger customer bases; greater brand recognition and market penetration; substantially greater financial, technological and research and development resources and selling and marketing capabilities; and more experience dealing with third-party payers. As a result, they may be able to respond more quickly to changes in customer requirements, devote greater resources to the development, promotion and sale of their products than we do or sell their products at prices designed to win significant levels of market share. We may not be able to compete effectively against these organizations. Increased competition and cost-saving initiatives on the part of governmental entities and other third-party payers are likely to result in pricing pressures, which could harm our sales or ability to gain market share. In addition, competitors may be acquired by, receive investments from or enter into other commercial relationships with larger, well-established and well-financed companies. Certain of our competitors may be able to secure key inputs from vendors on more favorable terms, devote greater resources to marketing and promotional campaigns, adopt more aggressive pricing policies and devote substantially more resources to product development than we can. In addition, companies or governments that control access to genetic testing through umbrella contracts or regional preferences could promote our competitors or prevent us from selling certain products. If we are unable to compete successfully against current and future competitors, we may be unable to increase market acceptance and sales of our tests, which could prevent us from increasing our revenue or achieving profitability and could cause our stock price to decline.

The sizes of the markets for our current and future products have not been established with precision, and may be smaller than we estimate.

Our estimates of the annual total addressable markets for our current products and products under development are based on a number of internal and third-party estimates, including, without limitation, the number of patients profiled with genomic diagnostics in the diseases we test, the assumed prices for genomic and algorithmic testing products, the number of genomic and algorithmic tests that we are able to successfully develop and commercialize, and the existing market for multimodal patient data and clinical trial matching services. While we believe our assumptions and the data underlying our estimates are reasonable, these assumptions and estimates may not be correct and the conditions supporting our assumptions or estimates may change at any time, thereby reducing the predictive accuracy of these underlying factors. As a result, our estimates of the annual total addressable market for our current or future products may prove to be incorrect. If the actual number of patients who would benefit from our products, the price at which we can sell our products, the number of genomic or algorithmic tests we are able to successfully develop and commercialize, or the annual total addressable market for our products is smaller than we have estimated, it may impair our sales growth and have an adverse impact on our business, financial condition and results of operations.

The industries in which we operate are subject to rapid change, which could make our Platform, our current products and any future products we may develop obsolete.

The healthcare diagnostic and data industries are characterized by rapid changes, including technological and scientific breakthroughs, frequent new product introductions and enhancements and evolving industry standards, any of which could make our current and future products obsolete. Our future success will depend on our ability to keep pace with the evolving needs of our customers on a timely and cost-effective basis and to pursue new market opportunities that develop as a result of scientific and technological advances. In recent years, there have been numerous advances in technologies relating to genomic diagnostic testing, as well as advances in the application of AI to healthcare diagnostics and decision-making. We must continuously enhance our Platform and our existing diagnostic, data and analytics products and develop new products to keep pace with evolving standards of care. If we do not update our product offerings to reflect new scientific knowledge about disease biology, information about new therapies or relevant clinical trials, or insights regarding the current treatment landscape for applicable indications and advances in computational biology, software development, and AI, our Platform and products could become obsolete and sales of our current products and any new products we may develop could decline or fail to grow as expected. Further, to the extent that pharmaceutical or biotechnology companies are able to develop therapies or technologies that eradicate or substantially limit the incidence of diseases for which we sell diagnostics, the market for our applicable products could disappear entirely.

Our research and development strategy emphasizes rapid innovation and advancement of successful hires who may not have prior industry expertise, and we frequently prioritize patient care and customer satisfaction over short-term financial results. If we cannot maintain or properly manage our culture as we grow, our business may be harmed.

We have a research and development strategy that encourages employees to quickly develop and launch technologies intended to solve our customers' most important problems and prioritizes the advancement of Platform and product development, technology and engineering employees to positions of significant responsibility based on merit despite, in some cases, limited prior work or industry experience. Successful entry-level hires are often quickly advanced and rewarded with significant responsibilities, including in important customer-facing roles as project managers, development leads, and product managers. As our business grows and becomes more complex, our cultural emphasis on moving quickly and staffing research and development personnel, including certain customer-facing employees, without significant industry experience may result in unintended outcomes or in decisions that are poorly received by customers or other stakeholders. For example, in many cases we launch, at our expense, pilot deployments with customers without a long-term contract in place, and some of those deployments have not resulted in the customer's adoption or expansion of its use of our products, or the generation of significant, or any, revenue or payments. In addition, as we continue to grow, including geographically, and as we develop a public company infrastructure, we may find it difficult to maintain our culture.

Our culture also prioritizes patient care and customer satisfaction over short-term financial results, and we frequently make product decisions that may reduce our short-term revenue or cash flow if we believe that the decisions are consistent with our mission and thereby have the potential to improve our financial performance over the long term. These decisions may not produce the long-term benefits and results that we expect or may be poorly received in the short term by the public markets, in which case our customer growth and our business, financial condition and results of operations may be harmed.

We may not be able to successfully market, sell or distribute our products, and if we are unable to expand our sales organization to adequately address our customers' needs, our business, financial condition and results of operations may be adversely affected.

We may not be able to market, sell or distribute our data products and diagnostic tests, and other products we may develop effectively enough to support our planned growth. We currently sell our Genomics and AI Applications tests to clinicians and hospital systems in the United States through our own sales organization and may leverage distributors to help sell our Genomics diagnostic tests in international markets, and we sell our Data and Services products to pharmaceutical and biotechnology companies through our business development team.

Each of our target markets is large, distinct and diverse. As a result, we believe it is necessary for many of our sales representatives and business development managers to have established diagnostic- or healthcare data- focused expertise. Competition for such employees within the precision diagnostics and healthcare data analytics industries is intense. We may not be able to attract and retain personnel or be able to build an efficient and effective sales organization or business development team, which could negatively impact sales and market acceptance of our products and limit our revenue growth and potential profitability.

Our expected future growth will impose significant added responsibilities on members of management, including the need to identify, recruit, maintain and integrate additional employees. Our future financial performance and our ability to commercialize our products, to increase our sales and to compete effectively will depend, in part, on our ability to manage this potential future growth effectively, without compromising quality.

If we are not successful in executing our strategy to increase sales of our Data and Services products to large pharmaceutical and biotechnology customers, our results of operations may suffer.

An important part of our growth strategy is to increase sales of Data and Services products, and in particular our Insights product, to large pharmaceutical and biotechnology companies. Sales to large companies involve risks that may not be present (or that are present to a lesser extent) with sales to small-to-mid-sized entities. These risks include:

- increased leverage held by large customers in negotiating contractual arrangements with us;
- changes in key decision makers within these organizations that may negatively impact our ability to negotiate in the future;
- customer employees may perceive that our products pose a threat to their internal control and advocate for internally developed solutions over our product;
- resources may be spent on a potential customer that ultimately elects not to purchase our products;
- more stringent requirements in our service contracts, including stricter service response times, and increased penalties for any failure to meet service requirements;
- increased competition from larger competitors that traditionally target large enterprises and government entities;
- less predictability in completing some of our sales than we do with smaller customers; and
- the potential that advancements in AI allow our Data customers to develop models that serve as functional equivalents of our database and render our own products obsolete.

Selling to large pharmaceutical and biotechnology companies is often a lengthy process, generally taking several months and sometimes longer. Following the establishment of the relationship, the negotiation of purchase terms can be time-consuming, and a potential customer may require an extended evaluation and testing period. Due to the length, size, scope, and requirements of these evaluations, we frequently provide short-term pilot deployments of our Data and Services products at no or low cost. We sometimes spend substantial time, effort and money in our sales efforts without producing any sales. The success of the investments that we make to acquire customers depends on factors such as our ability to identify potential customers for which our data products have an opportunity to add significant value to the customer's business, our ability to identify and agree with the potential customer on an appropriate pilot deployment to demonstrate the value of our products, and whether we successfully execute on such pilot deployment. Even if the pilot deployment is successful, we or the customer could choose not to enter into a larger contract for a variety of reasons. For example, product purchases by large companies are frequently subject to budget constraints, leadership changes, multiple approvals, and unplanned administrative, processing, and other delays, any of which could significantly delay or entirely prevent our realization of

sales. As a result, in the event a sale is not completed or is canceled or delayed, we may have incurred substantial expenses, making it more difficult for us to become profitable or otherwise negatively impacting our financial results.

Finally, large companies typically (i) have longer implementation cycles, (ii) require greater product functionality and scalability and a broader range of services, including design services, (iii) demand that vendors take on a larger share of risks, (iv) sometimes require acceptance provisions that can lead to a delay in revenue recognition and (v) expect greater payment flexibility from vendors.

All of these factors can add further risk to business conducted with these customers. If sales expected from a large customer for a particular quarter are not realized in that quarter or at all, our business, financial condition and results of operations could be materially and adversely affected.

If our existing customers do not renew their licenses, do not buy additional products from us, or renew at lower prices, our business and operating results will suffer.

For the year ended December 31, 2024, we derived \$111.6 million, or approximately 46% and 16%, of our Data and Services product line revenue and total revenue, respectively, from three customers. We expect to continue to derive a significant portion of our Data and Services product line revenue from renewal of existing agreements. As a result, maintaining the renewal rate of our existing customers and selling additional products to them is critical to our future operating results. Factors that may affect the renewal rate for our customers and our ability to sell additional products to them include:

- the price, performance, and functionality of our products;
- the availability, price, performance, and functionality of competing products;
- the effectiveness of our support services;
- our ability to develop complementary products;
- the success of competitive products or technologies;
- the stability, performance, and security of our technological infrastructure; and
- the business environment of our customers.

We deliver our Insights product through license agreements that allow our customers to use de-identified datasets for a specified term or for specified uses. Our customers have no obligation to renew their licenses for our Data and Services products after the license ends, and many of our contracts may be terminated or reduced in scope either immediately or upon notice. In addition, our customers may negotiate terms less advantageous to us upon renewal, which may reduce our revenue from these customers. Factors that are not within our control may contribute to a reduction in our Data and Services product line revenue. For instance, our customers may change the indications in which they are conducting research and development, which could result in a reduced demand for our products and thus a lower aggregate renewal fee. The loss, reduction in scope, or delay of a large contract, or the loss or delay of multiple contracts, could materially adversely affect our business, financial condition and results of operations.

Our future operating results also depend, in part, on our ability to sell expanded products to our existing customers. For example, the willingness of existing customers to expand their use of our Insights product will depend on our ability to deliver meaningful information and insights relevant to our customers' research and development endeavors, which we may not do successfully. If our customers fail to renew their agreements, renew their agreements upon less favorable terms or at lower fee levels, or fail to purchase expanded licenses from us, our revenue may decline and our future revenue may be constrained.

A significant portion of our Data and Services product line revenue are generated by sales to life sciences industry customers, and factors that adversely affect this industry could also adversely affect our Data business sales.

A significant portion of our current Data and Services products sales are to customers in the life sciences industry, in particular the pharmaceutical and biotechnology industry. Demand for our Data and Services products could be affected by factors that adversely affect the life sciences industry, including macroeconomic and market conditions that may adversely impact earlier stage biotechnology companies. The life sciences industry is highly regulated and competitive and has experienced periods of considerable consolidation. Consolidation among our customers could cause us to lose customers,

decrease the available market for our products, and adversely affect our business, financial condition and results of operations. In addition, changes in regulations that make investment in the life sciences industry less attractive or drug development more expensive could adversely impact the demand for our data analytics products. For these reasons and others, selling data analytics products to life sciences companies can be competitive, expensive, and time consuming, often requiring significant upfront time and expense without any assurance that we will successfully complete a sale. Accordingly, our operating results and our ability to efficiently provide our products to life sciences companies and to grow or maintain our customer base could be adversely affected as a result of factors that affect the life sciences industry generally.

We have invested and expect to continue to invest in research and development efforts that further enhance our data analytics. Such investments may affect our operating results, and, if the return on these investments is lower or develops more slowly than we expect, our revenue and operating results may suffer.

We have invested and expect to continue to invest in research and development efforts that further enhance our data analytics, often in response to our customers' requirements. These investments may involve significant time, risks, and uncertainties, including the risk that the expenses associated with these investments may affect our margins and operating results and that such investments may not generate sufficient revenue to offset liabilities assumed and expenses associated with these new investments. The healthcare data analytics industry changes rapidly as a result of technological and product developments, which may render our Platform and products less desirable. We believe that we must continue to invest a significant amount of time and resources in our Platform and products to maintain and improve our competitive position. If we do not achieve the benefits anticipated from these investments, if the achievement of these benefits is delayed, or if a slowdown in general computing power impacts the rate at which we expect our physics-based simulations to increase in power and domain applicability, our revenue and operating results may be adversely affected.

If we are unable to collect receivables from our customers, our operating results may be adversely affected.

While the majority of our current customers are well-established large companies and hospital systems, we also provide our Data and Services products to smaller institutions and companies and our Genomics product line to individuals. Our financial success depends upon the creditworthiness and ultimate collection of amounts due from our customers, including our smaller customers with fewer financial resources. If we are not able to collect amounts due from our customers, we may be required to write-off significant accounts receivable and recognize bad debt expenses, which could materially and adversely affect our operating results.

Our existing and any future debt may affect our flexibility in operating and developing our business and our ability to satisfy our obligations.

As of December 31, 2024, we had indebtedness of \$440.6 million, comprised of \$168.2 million under the convertible promissory note, as amended, or the Amended Note, that we issued to Google LLC, or Google, and \$272.4 million of senior secured term loans, or the Term Loan Facility, pursuant to a credit agreement, or the Credit Agreement, with Ares Capital Corporation, or Ares. In addition, in connection with the closing of the Acquisition (as defined below), we entered into an amendment to the Credit Agreement providing for an additional \$200.0 million in senior secured term loans, or the Additional Term Loan Facility (and together with the Term Loan Facility, the "Term Loan Facilities"), and \$100.0 million in senior secured revolving loan commitments, or the Revolving Credit Facility. Our current and future indebtedness, including the Amended Note, the Term Loan Facilities and the Revolving Credit Facility may have significant negative effects on our operations, including:

- impairing our ability to obtain additional financing in the future (or to obtain such financing on acceptable terms) for working capital, capital expenditures, acquisitions or other important needs, and subjecting us to other restrictive covenants that may reduce our ability to take certain corporate actions;
- requiring us to dedicate a portion of our cash resources to the payment of interest and principal, reducing money available to fund working capital, capital expenditures, potential acquisitions, international expansion, new product development, new enterprise relationships and other general corporate purposes;
- requiring us to repay the principal and accrued interest on the Amended Note if we terminate our agreement with Google for use of Google Cloud or as a result of an event of default under the operating covenants in the Amended Note, or requiring us to repay the principal and accrued interest on the Term Loan Facility in an event of default under the covenants of the Term Loan Facility, either of which could impair our liquidity and reduce the availability of our cash flow to fund working capital, capital expenditures, acquisitions and other important needs;

- limiting our ability to adjust to rapidly changing conditions in the industry, reducing our ability to withstand competitive pressures and making us more vulnerable to a downturn in general economic conditions or business than our competitors with relatively lower levels of debt; and
- requiring us, in certain circumstances, to obtain approval from Ares and/or the lenders party to the Credit Agreement before embarking on certain mergers, acquisitions, capital expenditures, or other operational issues.

We intend to satisfy our current and future debt service obligations with our then existing cash and cash equivalents. However, we may not have sufficient funds, and may be unable to arrange for additional financing, to pay the amounts due under the Term Loan Facilities, the Revolving Credit Facility, the Amended Note or any other debt instruments. In addition, the Credit Agreement, as amended, and the Amended Note contain, and the agreements governing our future indebtedness may contain, restrictive covenants that may limit our ability to engage in activities that may be in our long-term best interest. These restrictive covenants include, among others, limitations on indebtedness, liens, mergers, consolidations, liquidations and dissolutions, sales of assets, investments (including acquisitions), dividends and other restricted payments and transactions with affiliates. Our failure to make payments under or comply with other covenants contained in the documents governing our indebtedness could result in an event of default which, if not cured or waived, could result in the acceleration of substantially all of our debt and potentially the foreclosure on our assets in the event we are unable to repay all amounts owed.

We rely on a limited number of suppliers or, in some cases, sole suppliers, for some of our laboratory instruments and materials and may not be able to find replacements or promptly transition to alternative suppliers.

We rely on a limited number of suppliers or, in some cases, sole suppliers, including Illumina Inc., or Illumina, for certain sequencers, reagents, blood tubes and other equipment, instruments and materials that we use in our laboratory operations. Purchases from this supplier accounted for approximately 39% and 33% of total vendor payments for the years ended December 31, 2024 and 2023, respectively. Amounts due to this supplier were approximately \$18.2 million at December 31, 2024. An interruption in our laboratory operations could occur if we encounter delays or difficulties in securing these laboratory equipment, instruments or materials, and if we cannot then obtain an acceptable substitute. Any such interruption could significantly and adversely affect our business, financial condition and results of operations. We rely on Illumina as the sole supplier of the sequencers and as the sole provider of maintenance and repair services for these sequencers. Any disruption in operations of Illumina or other sole or limited suppliers or termination or suspension of our relationships with them could materially and adversely impact our supply chain and laboratory operations of our diagnostic testing business and thus our ability to conduct our business and generate revenue. These limited or sole suppliers could engage in diverse types of businesses, including selling products in competition with us, and there can be no assurance that we can continue to receive required equipment, instruments or materials from them.

We believe that there are only a limited number of manufacturers that are capable of supplying and servicing the equipment and materials necessary for our laboratory operations, including sequencers and various associated reagents, and potentially replacing our current suppliers. The use of equipment or materials furnished by replacement suppliers would require us to alter our laboratory operations. Transitioning to a new supplier would be time-consuming and expensive, may result in interruptions in our laboratory operations, could affect the performance specifications of our laboratory operations or could require that we revalidate our tests. There can be no assurance that we will be able to secure alternative equipment, reagents and other materials, bring such equipment, reagents and materials online, and revalidate our tests without experiencing interruptions in our workflow. In the case of an alternative supplier for Illumina, for example, there can be no assurance that replacement sequencers and various associated reagents will be available or will meet our quality control and performance requirements for our laboratory operations. If we should encounter delays or difficulties in securing, reconfiguring or integrating the equipment and reagents we require for our products or in revalidating our products, our business, financial condition and results of operations could be materially and adversely affected.

Certain disruptions in supply of, and changes in the competitive environment for, raw materials and components integral to the manufacturing of our products may adversely affect our ability to achieve and maintain profitability.

We use a broad range of materials and supplies, including chemicals and other electronic components, in our Genomics product line. A significant disruption in the supply of these materials, including disruptions like those stemming from the pandemics and epidemics, could decrease production and shipping levels, materially increase our operating costs and materially adversely affect our profit margins. Shortages of materials or interruptions in transportation systems, labor strikes, work stoppages, infectious disease, epidemics or pandemics, outbreaks, conflicts (including the armed conflicts between Russia and Ukraine and the hostilities in the Middle East), civil unrest, acts of terrorism or other interruptions to or difficulties in the employment of labor (such as strikes by unionized workforces) or transportation in the markets in which we

purchase materials, components and supplies for the production of our diagnostic tests, in each case may adversely affect our ability to maintain our testing capacity. Unforeseen end-of-life or unavailability for certain components, such as enzymes, could cause backorders as we modify our product specifications to accommodate replacement components. If we were to experience a significant disruption in the supply of, or prolonged shortage of, critical components from any of our suppliers and could not procure the components from other sources, we would be unable to sustain our testing capacity, which would adversely affect our sales, margins and customer relations.

If our existing laboratory and storage facilities become damaged or inoperable or we are required to vacate our existing facilities, our ability to perform our tests and pursue our research and development efforts may be jeopardized.

We currently derive nearly all of our diagnostic revenue from tests performed at laboratory facilities located in Chicago, Illinois, Atlanta, Georgia, Raleigh, North Carolina, and Aliso Viejo, California and these facilities generally do not have completely redundant capabilities. Further, while we are currently in the process of expanding the number and type of diagnostic tests within our laboratory facility in Raleigh, North Carolina, there is no assurance that we will successfully transition in a timely manner or at all, and we may not be able to fully operationalize this facility to its capacity. Our facilities and equipment could be harmed or rendered inoperable by natural or man-made disasters, including war, fire, earthquake, power loss, communications failure or terrorism, which may render it difficult or impossible for us to operate our Genomics product line for some period of time and which may also cause us to lose valuable stored tissue samples, including organoids. The inability to perform our tests or to reduce the backlog that could develop if a facility is inoperable for even a short period of time, may result in the loss of customers or harm to our reputation, and we may be unable to regain those customers or repair our reputation. Furthermore, our facilities and the equipment we use to perform our research and development work could be unavailable or costly and time-consuming to repair or replace. It would be difficult, time-consuming and expensive to rebuild a facility, to locate and qualify a new facility or enable a third party to practice our proprietary technology, particularly in light of licensure and accreditation requirements. Even if we are able to find a third party with such qualifications to perform our tests, the parties may be unable to agree on commercially reasonable terms. Our physical laboratory facilities are also subject to regulatory oversight, such by the federal Occupational Safety and Health Administration, or OSHA, and certain state analogs. On occasion, certain safety issues are reported directly to OSHA. While we have been successful in promptly remediating any such issues, there is no guarantee we will be able to do so in the future, and these regulatory bodies could intervene and suspend our operations, which could have a material impact on our business.

We carry insurance for damage to our property and disruption of our business, but this insurance may not cover all of the risks associated with damage or disruption to our facilities and business, may not provide coverage in amounts sufficient to cover our potential losses and may not continue to be available to us on acceptable terms, if at all.

We rely on commercial courier delivery services to transport samples to our laboratory facility in a timely and cost-efficient manner and if these delivery services are disrupted, our business will be harmed.

Our business depends on our ability to deliver test results quickly and reliably to our customers. Blood and tissue samples sent from the United States by patients, physicians or hospital pathology departments are typically received within days for analysis at our Chicago, Atlanta, Raleigh, or Aliso Viejo facilities. Disruptions in delivery services to transport samples to that facility, whether due to labor disruptions, bad weather, natural disaster, terrorist acts or threats or for other reasons could adversely affect specimen integrity and our ability to process samples in a timely manner, delay our provision of test results to our customers, and ultimately our reputation and our business. In addition, if we are unable to continue to obtain expedited delivery services to transport samples to us on commercially reasonable terms, our business, financial condition and results of operations may be adversely affected.

If we cannot provide quality technical support and services for our Data and Services products, we could lose customers and our business and prospects will suffer.

Our ability to provide relevant information to customers of our Data business, and in particular of our Insights product, depends substantially on our ability to provide quality technical support and services during the term of their license. Accordingly, we need highly trained technical support and services personnel. Hiring support and services personnel is very competitive in our industry due to the limited number of people available with the necessary scientific and technical backgrounds and ability to understand our products and the needs of our customers. To effectively support new customers and the expanding needs of current customers, we will need to substantially expand our support and services staff and develop our support infrastructure and processes. If we are unable to attract, train or retain the number of highly qualified technical services personnel that our business needs, our business and prospects will suffer.

Seasonality may cause fluctuations in our revenue and results of operations.

We believe that there are significant seasonal factors which may cause sales of our products, such as our Insights product and our infectious disease tests, to vary on a quarterly or yearly basis and increase the magnitude of quarterly or annual fluctuations in our operating results. We believe that this seasonality results from a number of factors, including the procurement and budgeting cycles of many of our customers, especially pharmaceutical and biotechnology customers. These customers typically have calendar year fiscal years, which result in a disproportionate amount of their purchasing activity occurring during our fourth quarter. These factors have contributed, and may contribute in the future, to substantial fluctuations in our quarterly operating results. Because of these fluctuations, it is possible that in some quarters our operating results will fall below the expectations of securities analysts or investors. If that happens, the market price of our common stock would likely decrease. These fluctuations, among other factors, also mean that our operating results in any particular period may not be relied upon as an indication of future performance. Seasonal or cyclical variations in our sales have in the past, and may in the future, become more or less pronounced over time, and have in the past materially affected, and may in the future materially affect, our business, financial condition and results of operations.

International expansion of our business exposes us to business, regulatory, political, operational, financial, and economic risks associated with doing business outside of the United States.

We currently have limited international operations, but our business strategy incorporates potentially significant international expansion. We plan to conduct physician and patient association outreach activities, to extend laboratory capabilities, to expand payer relationships and to market our Data business to pharmaceutical and biotechnology customers outside of the United States. Doing business internationally involves a number of risks, including:

- multiple, conflicting and changing laws and regulations such as privacy regulations, including regulations that limit our ability to collect and distribute and otherwise process de-identified patient data, tax laws, export and import restrictions, economic sanctions and embargoes, employment laws, healthcare regulatory requirements, including those governing diagnostic testing and reimbursement, and other governmental approvals, permits and licenses;
- failure by us, our distributors, our local partners to obtain regulatory approvals or certifications for the use of our products in various countries;
- additional potentially blocking or relevant third-party patent or other intellectual property rights;
- complexities and difficulties in obtaining intellectual property protection and maintaining and enforcing our intellectual property rights;
- difficulties in staffing and managing foreign operations;
- complexities associated with managing multiple payer reimbursement regimes, government payers, or patient self-pay systems;
- logistics and regulations associated with shipping blood samples, including infrastructure conditions and transportation delays;
- patient populations that are underrepresented in our databases;
- limits in our ability to penetrate international markets if we are not able to perform our tests locally;
- financial risks, such as longer payment cycles, difficulty collecting accounts receivable, the impact of local and regional financial crises on demand and payment for our products and exposure to foreign currency exchange rate fluctuations, currency controls and cash repatriation restrictions;
- natural disasters, political and economic instability, including wars (such as the armed conflicts between Russia and Ukraine and the hostilities in the Middle East), terrorism, and political unrest, boycotts, curtailment of trade and other business restrictions;
- public health or similar issues, such as epidemics or pandemics, that could cause business disruption; and
- regulatory and compliance risks that relate to maintaining accurate information and control over sales and distributors' activities that may fall within the purview of the U.S. Foreign Corrupt Practices Act, or FCPA, its books and records provisions, or its anti-bribery provisions.

Any of these factors could significantly harm our future international expansion and operations and, consequently, our revenue and results of operations.

Risks Related to Our Highly Regulated Industry

We and the third parties with whom we work are subject to stringent and evolving U.S. and foreign laws, regulations, and rules, contractual obligations, industry standards, policies and other obligations related to data privacy and security. Our (or the third parties with whom we work) actual or perceived failure to comply with such obligations could lead to regulatory investigations or actions; litigation (including class claims) and mass arbitration demands; fines and penalties; disruptions of our business operations; reputational harm; loss of revenue or profits; and other adverse business consequences.

In the ordinary course of business, we collect, receive, store, process, generate, use, transfer, disclose, make accessible, protect, secure, dispose of, transmit, and share (collectively, “process”) personal data and other sensitive information, including large amounts of personal health and financial information, proprietary and confidential business data, trade secrets, intellectual property, data we collect about trial participants in connection with clinical trials, and sensitive third-party data. Our data processing activities subject us to numerous data privacy and security obligations, such as various laws, regulations, guidance, industry standards, external and internal privacy and security policies, contractual requirements, and other obligations relating to data privacy and security.

In the United States, federal, state, and local governments have enacted numerous data privacy and security laws, including data breach notification laws, personal data privacy laws, consumer protection laws (e.g., Section 5 of the Federal Trade Commission Act), and other similar laws (e.g., wiretapping laws). For example, HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act, or HITECH, imposes specific requirements relating to the privacy, security, and transmission of individually identifiable protected health information.

HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act of 2009, or HITECH, establishes a set of national privacy and security standards for the protection of PHI by health plans, healthcare clearinghouses, and certain healthcare providers that submit certain covered transactions electronically, or “covered entities,” and their “business associates,” which are persons or entities that perform certain services for, or on behalf of, a covered entity that involve creating, receiving, maintaining or transmitting PHI, and their covered subcontractors. We are a covered entity under HIPAA, and also routinely receive large amounts of PHI as a business associate under HIPAA, and therefore must comply with its requirements to protect the privacy and security of health information and must provide individuals with certain rights with respect to their health information. If we engage a business associate to help us carry out healthcare activities and functions, we must have a written business associate contract or other arrangement with the business associate that establishes specifically what the business associate has been engaged to do and requires the business associate to comply with the same requirements.

Penalties for violations of these laws vary. For instance, a single breach incident can result in findings of violations of multiple HIPAA provisions. Penalties for failure to comply with a requirement of HIPAA and HITECH vary significantly, and include civil monetary penalties for each provision of HIPAA that is violated and, in certain circumstances, criminal penalties, including imprisonment and/or additional fines. A person who knowingly obtains or discloses individually identifiable health information in violation of HIPAA may face additional fines and up to one-year imprisonment. The criminal penalties increase if the wrongful conduct involves false pretenses or the intent to sell, transfer, or use identifiable health information for commercial advantage, personal gain, or malicious harm. In addition, any allegation that we have violated HIPAA, regardless of its merit, could harm our reputation and consume significant internal resources. Responding to government investigations regarding alleged violations of these and other laws and regulations, even if ultimately concluded with no findings of violations or no penalties imposed, can consume company resources and impact our business and, if public, harm our reputation.

Numerous U.S. states have enacted comprehensive privacy laws that impose certain obligations on covered businesses, including providing specific disclosures in privacy notices and affording residents with certain rights concerning their personal data. As applicable, such rights may include the right to access, correct, or delete certain personal data, and to opt-out of certain data processing activities, such as targeted advertising, profiling, and automated decision-making. The exercise of these rights may impact our business and ability to provide our products and services. Certain states also impose stricter requirements for processing certain personal data, including sensitive information, such as conducting data privacy impact assessments. These state laws allow for statutory fines for noncompliance. For example, the CCPA applies to personal data of consumers, business representatives, and employees who are California residents, and requires businesses to provide specific disclosures in privacy notices and honor requests of such individuals to exercise certain privacy rights. The CCPA provides for fines and allows private litigants affected by certain data breaches to recover significant statutory damages. The CCPA and other comprehensive U.S. state privacy laws exempt some data processed in the context of clinical trials, but these developments may further complicate compliance efforts, and increase legal risk and compliance costs for us, the third parties with whom we work. Similar laws are being considered in several other states, as well as at the federal and local levels, and we expect more states to pass similar laws in the future.

We are also subject to new laws governing the privacy of consumer health data. For example, Washington's My Health My Data Act broadly defines consumer health data, places restrictions on processing consumer health data (including imposing stringent requirements for consents), provides consumers certain rights with respect to their health data, and creates a private right of action to allow individuals to sue for violations of the law. Other states are considering and may adopt similar laws.

These laws and regulations are not necessarily preempted by HIPAA, particularly if a state affords greater protection to individuals than HIPAA. Where state laws differ from HIPAA, we may have to comply with these provisions. In addition to fines and penalties imposed upon violators, some of these state laws also afford private rights of action to individuals who believe their personal information has been misused. The interplay of federal and state laws may be subject to varying interpretations by courts and government agencies, creating complex compliance issues for us and our clients, and potentially exposing us to additional expense, adverse publicity and liability. Further, as regulatory focus on privacy issues continues to increase and laws and regulations concerning the protection of personal information expand and become more complex, these potential risks to our business could intensify. Changes in laws or regulations associated with the enhanced protection of certain types of sensitive data, such as PHI or other types of sensitive personally identifiable information, or PII, or increased demands for enhanced data security infrastructure applied to personally identifiable information, could greatly increase our costs of providing our products, decrease demand for our products, reduce our revenue and/or subject us to additional risks. In addition, the interpretation and application of consumer, health-related, and data protection laws, especially with respect to genetic samples and data, in the United States, the EU (including all countries in the EEA), and elsewhere are often uncertain, contradictory, and in flux.

Outside the United States, an increasing number of laws, regulations, and industry standards govern data privacy and security. For example, EU GDPR and UK GDPR (collectively, GDPR) impose strict requirements for processing personal data. For example, under the GDPR, companies may face temporary or definitive bans on data processing and other corrective actions; fines of up to 20 million Euros under the EU GDPR, 17.5 million pounds sterling under the UK GDPR or, in each case, 4% of annual global revenue, whichever is greater; or private litigation related to processing of personal data brought by classes of data subjects or consumer protection organizations authorized at law to represent their interests. The GDPR enhances data protection obligations for processors and controllers of personal data, including, for example, higher standards for obtaining consent from individuals to process their personal data, more robust disclosures to individuals and a strengthened individual data rights regime, timelines for data breach notifications as short as 72 hours for notification to supervisory authorities, limitations on retention of information, increased requirements pertaining to health data, other special categories of personal sequencing and pseudonymized (i.e., key-coded) data and additional obligations when we contract third-party processors in connection with the processing of the personal data. The GDPR provides that EU member states may make their own further laws and regulations limiting the processing of personal data, including genetic, biometric or health data, which could limit our ability to use and share personal data or could cause our costs to increase, and harm our business, financial condition and results of operations.

In the ordinary course of business, we transfer personal data from Europe and other jurisdictions to the United States or other countries. Europe and other jurisdictions have enacted laws requiring data to be localized or limiting the transfer of personal data to other countries. In particular, the EEA and the UK have significantly restricted the transfer of personal data to the United States and other countries whose privacy laws it generally believes are inadequate. Other jurisdictions may adopt or have already adopted similarly stringent data localization and cross-border data transfer laws. Although there are currently various mechanisms that may be used to transfer personal data from the EEA and UK to the United States in compliance with law, such as the EEA standard contractual clauses, the UK's International Data Transfer Agreement / Addendum, and the EU-U.S. Data Privacy Framework and the UK extension thereto (which allows for transfers to relevant U.S.-based organizations who self-certify compliance and participate in the Framework), these mechanisms are subject to legal challenges, and there is no assurance that we can satisfy or rely on these measures to lawfully transfer personal data to the United States. If there is no lawful manner for us to transfer personal data from the EEA, the UK or other jurisdictions to the United States, or if the requirements for a legally-compliant transfer are too onerous, we could face significant adverse consequences, including the interruption or degradation of our operations, the need to relocate part of or all of our business or data processing activities to other jurisdictions (such as Europe) at significant expense, increased exposure to regulatory actions, substantial fines and penalties, the inability to transfer data and work with partners, vendors and other third parties, and injunctions against our processing or transferring of personal data necessary to operate our business. Additionally, companies that transfer personal data out of the EEA and UK to other jurisdictions, particularly to the United States, are subject to increased scrutiny from regulators, individual litigants, and activist groups. Some European regulators have ordered certain companies to suspend or permanently cease certain transfers out of Europe for allegedly violating the GDPR's cross-border data transfer limitations. For example, in May 2023, the Irish Data Protection Commission determined that a major social media company's use of the standard contractual clauses to transfer personal data from Europe to the United States was insufficient and levied a 1.2 billion Euro fine against the company and prohibited the company from transferring personal data to the United States. Regulators in the United States such as the Department of Justice are also

increasingly scrutinizing certain personal data transfers and have proposed and may enact certain data localization requirements, for example, the Biden Administration's executive order Preventing Access to Americans' Bulk Sensitive Personal Data and United States Government-Related Data by Countries of Concern.

Our employees and personnel use generative AI and machine learning technologies to perform their work, and the disclosure and use of personal data in generative AI technologies is subject to various privacy laws and other privacy obligations. Governments have passed and are likely to pass additional laws regulating generative AI. Our use of this technology could result in additional compliance costs, regulatory investigations and actions, and lawsuits. If we are unable to use generative AI, it could make our business less efficient and result in competitive disadvantages.

We use AI/machine learning to assist us in making certain decisions, which is regulated by certain privacy laws. Due to inaccuracies or flaws in the inputs, outputs, or logic of the AI/machine learning, the model could be biased and could lead us to make decisions that could bias certain individuals (or classes of individuals), and adversely impact their rights, employment, and ability to obtain certain pricing, products, services, or benefits.

In addition, we use AI, including generative AI, and machine learning technologies in our products and services. The development and use of AI/machine learning present various privacy and security risks that may impact our business. AI/machine learning are subject to privacy and data security laws, as well as increasing regulation and scrutiny. Several jurisdictions around the globe, including Europe and certain U.S. states, have proposed enacted, or are considering laws governing the development and use of AI/machine learning, such as the EU's AI Act. We expect other jurisdictions will adopt similar laws. Additionally, certain privacy laws extend rights to consumers (such as the right to delete certain personal data) and regulate automated decision making, which may be incompatible with our use of AI/machine learning. These obligations may make it harder for us to conduct our business using AI/machine learning, lead to regulatory fines or penalties, require us to change our business practices, retrain our AI/machine learning, or prevent or limit our use of AI/machine learning. For example, the FTC has required other companies to turn over (or disgorge) valuable insights or trainings generated through the use of AI/machine learning where they allege the company has violated privacy and consumer protection laws. If we cannot use AI/machine learning or that use is restricted, our business may be less efficient, or we may be at a competitive disadvantage.

Additionally, under various privacy laws and other obligations, we may be required to obtain certain consents to process personal data. For example, some of our data processing practices may be challenged under wiretapping laws, if we obtain consumer information from third parties through various methods, including chatbot and session replay providers, or via third-party marketing pixels. These practices may be subject to increased challenges by class action plaintiffs. Our inability or failure to obtain consent for these practices could result in adverse consequences, including class action litigation and mass arbitration demands.

In addition to data privacy and security laws, we are contractually subject to industry standards adopted by industry groups and, we are, and may become in the future, subject to such obligations. We are also bound by contractual obligations related to data privacy and security, and our efforts to comply with such obligations may not be successful. We publish privacy policies, marketing materials, whitepapers, and other statements, such as statements related to compliance with certain certifications or self-regulatory principles, concerning data privacy, security and artificial intelligence. Regulators in the United States are increasingly scrutinizing these statements, and if these policies, materials or statements are found to be deficient, lacking in transparency, deceptive, unfair, misleading, or misrepresentative of our practices, we may be subject to investigation, enforcement actions by regulators or other adverse consequences.

Obligations related to data privacy and security (and consumers' data privacy expectations) are quickly changing, becoming increasingly stringent, and creating uncertainty. Additionally, these obligations may be subject to differing applications and interpretations, which may be inconsistent or conflict among jurisdictions. Preparing for and complying with these obligations requires us to devote significant resources, which may necessitate changes to our services, information technologies, systems, and practices and to those of any third parties that process personal data on our behalf. In addition, these obligations may require us to change our business model. We may at times fail (or be perceived to have failed) in our efforts to comply with our data privacy and security obligations. Moreover, despite our efforts, our personnel or third parties with whom we work may fail to comply with such obligations, which could negatively impact our business operations. Future or past business transactions (such as acquisitions or integrations) could expose us to additional privacy and compliance risks, and we and the companies we have acquired have been, and may in the future, be subject to litigation, regulatory investigations and other risks relating to privacy and security arising out of business transactions. For example, Ambry, which we acquired in February 2025, experienced a data breach in 2020 for which a regulatory investigation is ongoing, and for which the Seller (as defined below) agreed to indemnify us for any liabilities arising therefrom.

If we or the third parties with whom we work fail, or are perceived to have failed, to address or comply with applicable data privacy and security obligations, we could face significant consequences, including but not limited to: government enforcement actions (e.g., investigations, fines, penalties, audits, inspections, and similar); litigation (including class-action

claims) and mass arbitration demands; additional reporting requirements and/or oversight; bans or restrictions on processing personal data; orders to destroy or not use personal data; and imprisonment of company officials. In particular, plaintiffs have become increasingly more active in bringing privacy-related claims against companies, including class claims and mass arbitration demands. Some of these claims allow for the recovery of statutory damages on a per violation basis, and, if viable, carry the potential for monumental statutory damages, depending on the volume of data and the number of violations.

Any of these events could have a material adverse effect on our reputation, business, or financial condition, including but not limited to: loss of customers; interruptions or stoppages in our business operations (including, as relevant, clinical trials); interruptions or stoppages of data collection needed to train our algorithms; inability to process personal data or to operate in certain jurisdictions; limited ability to develop or commercialize our products; expenditure of time and resources to defend any claim or inquiry; adverse publicity; or substantial changes to our business model or operations.

We conduct business in a heavily regulated industry, and changes in regulations or violations of regulations may, directly or indirectly, reduce our revenue, adversely affect our business, financial condition and results of operations.

The diagnostic testing industry is highly regulated, and there can be no assurance that the regulatory environment in which we operate will not change significantly and adversely to us in the future. Areas of the regulatory environment that may affect our ability to conduct business include, without limitation:

- federal and state laws applicable to test ordering, documentation of tests ordered, billing practices and claims payment and/or regulatory agencies enforcing those laws and regulations;
- federal and state health care fraud and abuse laws;
- federal and state laboratory anti-mark-up laws;
- coverage and reimbursement levels by Medicare, Medicaid, other governmental payers and private insurers;
- restrictions on coverage of and reimbursement for tests;
- federal and state laws governing laboratory testing, including CLIA, and state licensing laws;
- federal and state laws and enforcement policies governing the development, use and distribution of diagnostic medical devices, including laboratory developed tests, or LDTs;
- federal and state laws and enforcement policies governing the use of AI in analyzing data, including data in healthcare related areas;
- federal, state and local laws governing the handling and disposal of medical and hazardous waste;
- federal and state Occupational Safety and Health Administration rules and regulations;
- the Health Insurance Portability and Accountability Act of 1996, or HIPAA, and similar state data privacy and security laws; and
- consumer protection laws; and
- Similar foreign laws and regulations in the countries in which we operate or may operate in the future.

In particular, the laws and regulations governing the marketing of diagnostic tests are complex, and there are often no sufficient regulatory or judicial interpretations of these laws and regulations. For example, some of our diagnostic tests are actively regulated by the FDA pursuant to the medical device provisions of the Federal Food, Drug and Cosmetic Act, or FDCA. The FDA defines a medical device to include any instrument, apparatus, implement, machine, contrivance, implant, in vitro reagent or other similar or related article, including a component, part or accessory, intended for use in the diagnosis of disease or other conditions, or in the cure, mitigation, treatment or prevention of disease, in man or other animals. Many of our genomic and algorithmic diagnostic tests are likely to be considered by the FDA to be medical devices. Among other things, pursuant to the FDCA and its implementing regulations, the FDA regulates the research, design, testing, manufacturing, safety, labeling, storage, record keeping, premarket clearance or approval, marketing and promotion and sales and distribution of medical devices in the United States to ensure that medical devices distributed domestically are safe and effective for their intended uses. In addition, the FDA regulates the import and export of medical devices. In the EEA, in order to place an *in vitro* diagnostic medical device, or IVD, or an accessory to an IVD, on the market, or put it into service in the EEA, the device must be designed, developed, manufactured and marketed in compliance with the relevant legal

framework. On May 26, 2022, the Regulation on *In-Vitro* Diagnostic Medical Devices (Regulation (EU) 2017/746), or IVDR, entered into application, repealing and replacing the Directive on *In-Vitro* Diagnostic Medical Devices (98/79/EC), or the “IVDD”. The IVDR and its associated guidance documents and harmonized standards governing, among other things, device design and development, preclinical and clinical or performance testing, premarket conformity assessment, registration and listing, manufacturing, labeling, storage, claims, sales and distribution, export and import and post-market surveillance, vigilance, and market surveillance. The IVDR also establishes transitional provisions permitting certain devices that have been CE marked in accordance with the IVDD to continue to be placed on the EEA market under strict conditions and for a specific period of time depending on the risk classification of the device. Medical devices are governed by the Regulation on Medical Devices (Regulation (EU) 2017/745) (“MDR”) which entered into application on May 26, 2021, repealing and replacing the Directive on Medical Devices (93/42/EC) (the “MDD”). The MDR establishes similar provisions to the IVDR in relation to medical devices. If we do not comply with these requirements or fail to adequately comply, our business, financial condition and results of operations may be harmed.

Changes in the current regulatory framework for algorithmic diagnostic products and services can impose additional regulatory burdens on us. The FDA is also currently considering the development of novel regulatory pathways for AI technologies and other software. As the regulatory framework evolves, we may incur substantial costs to ensure compliance with new or amended laws and regulations. Failure to comply with any of these laws and regulations could result in enforcement actions against us, damage to our reputation and loss of goodwill, any of which could have a material adverse effect on our business, financial condition and results of operations.

Certain of our tests are currently marketed as LDTs, and future changes in FDA enforcement discretion for LDTs could subject our operations to much more significant regulatory requirements.

The FDA has historically operated under a policy of enforcement discretion with respect to LDTs whereby the FDA did not actively enforce its regulatory requirements for such tests. On May 6, 2024, the FDA published final regulations that took effect on July 5, 2024 that will phase-out enforcement discretion over a period of four years and require compliance with device registration and listing requirements, medical device reporting requirements, 510(k) clearance, denovo authorization or Premarket Approval and the requirements of the FDA’s Quality System Regulation. If we fail to phase-in our compliance with these regulations we may be required to stop selling our existing tests or launching any other tests we may develop and to conduct additional clinical trials or take other actions prior to continuing to market our tests. This could significantly increase the costs and expenses of conducting, or otherwise harm, our business, financial condition and results of operations. Even if such tests are authorized for marketing by the FDA, the agency could limit the test’s indications for use, which may significantly limit the market for that product and may adversely affect our business and financial condition. Additionally, because our Platform and other software applications we make available include functionality related to the reporting of results from the LDTs we run, the FDA could attempt to regulate the software applications, including portions of our Platform, that we utilize to provide results of the LDTs to our customers and this may require costly modifications, additional development or the reduction in functionality in our offerings which could, in turn, make them less attractive to our customers.

There is no guarantee that the FDA will grant 510(k) clearance or a premarket approval or that comparable foreign regulatory authorities will grant the necessary clearance, approval or certification of our products and failure to obtain necessary clearances, approvals or certification for our products would adversely affect our ability to grow our business.

Before we begin to label and market certain of our products for use as clinical diagnostics in the United States, including as companion diagnostics, we may be required to obtain either 510(k) clearance or a premarket approval, or supplemental premarket approval, or respectively, PMA or sPMA, from the FDA, unless an exemption applies or FDA exercises its enforcement discretion and refrains from enforcing its medical device requirements.

The process of obtaining regulatory clearance or approval can be a rigorous, costly, lengthy and uncertain process. In the PMA process, the FDA must determine that a proposed device is safe and effective for its intended use based, in part, on extensive data, including, but not limited to, technical, pre-clinical, clinical trial, manufacturing and labeling data. In the 510(k) clearance process, the FDA must determine that a proposed device is “substantially equivalent” to a device legally on the market, known as a “predicate” device, in order to clear the proposed device for marketing. To be “substantially equivalent,” the proposed device must have the same intended use as the predicate device, and either have the same technological characteristics as the predicate device or have different technological characteristics and not raise different questions of safety or effectiveness than the predicate device. Clinical data is sometimes required to support a substantial equivalence determination.

The FDA can delay, limit or deny clearance or approval of a device for many reasons, including:

- our inability to demonstrate to the satisfaction of the FDA that our products are safe or effective for their intended uses;
- the disagreement of the FDA with the design, conduct or implementation of our clinical trials or the analysis or interpretation of data from our pre-clinical studies or clinical trials;
- serious and unexpected adverse effects experienced by participants in our clinical trials;
- the data from our pre-clinical studies and clinical trials may be insufficient to support clearance or approval, where required;
- our inability to demonstrate that the clinical and other benefits of any of our tests outweigh the risks;
- an advisory committee, if convened by the FDA, may recommend against approval of our PMA or other application for any of our tests or may recommend that the FDA require, as a condition of approval, additional pre-clinical studies or clinical trials, limitations on approved labeling or distribution and use restrictions, or even if an advisory committee, if convened, makes a favorable recommendation, the FDA may still not approve the test;
- the FDA may identify deficiencies in our marketing application, and in our manufacturing processes, facilities or analytical methods or those of our third-party contract manufacturers;
- the potential for approval policies or regulations of the FDA to change significantly in a manner rendering our clinical data or regulatory filings insufficient for the clearance or approval; and
- the FDA may audit our clinical trial data and conclude that the data is not sufficiently reliable to support a PMA application.

In foreign jurisdictions, we may be required to procure similar regulatory approvals, clearances or certification prior to marketing our diagnostic products. For example, in the Europe Union, we need to comply with the new MDR and IVDR. IVDs must comply with the General Safety and Performance Requirements (“GSPRs”) set out in Annex I to the IVDR and medical devices must comply with the GSPRs set out in Annex I to the MDR. Compliance with these requirements is a prerequisite to be able to affix the CE Mark to IVDs or medical devices, without which they cannot be marketed or sold in the EEA. To demonstrate compliance with the GSPRs provided in the IVDR or the MDR and obtain the right to affix the CE mark, medical devices manufacturers must undergo a conformity assessment procedure. Depending on the type of IVD or medical device and its classification, the conformity assessment procedure may require the intervention of a Notified Body. The Notified Body issues a CE Certificate of Conformity following successful completion of a conformity assessment procedure conducted in relation to the IVD or medical device and its manufacturer and their conformity with the GSPRs. This Certificate and the related conformity assessment process entitles the manufacturer to affix the CE mark to its IVDs or medical devices after having prepared and signed a related EU Declaration of Conformity. Obtaining the requisite regulatory approvals, clearances or certification in foreign jurisdictions can be expensive and may involve considerable delay.

Any delay or failure to obtain necessary regulatory approvals, clearances or certification would have a material adverse effect on our business, financial condition and results of operations.

Modifications to our FDA-cleared, approved or CE marked products may require new 510(k) clearances or premarket approvals or certification, or may require us to cease marketing or recall the modified products until clearances are obtained.

For any product approved pursuant to a PMA, we are required to seek supplemental approval for many types of changes to the approved product, for which we will need to determine whether a PMA supplement or other regulatory filing is needed or whether the change may be reported via the PMA Annual Report. Similarly, any modification to a 510(k)-cleared device that could significantly affect its safety or effectiveness, or that would constitute a major change in its intended use, design, or manufacture, requires new 510(k) clearance or, possibly, approval of a new PMA. If the FDA requires us to seek approvals or clearances for modifications to our previously approved or cleared products, for which we concluded that new approvals or clearances are unnecessary, we may be required to cease marketing or distribution of our products or to recall the modified product until we obtain the approval or clearance, and we may be subject to significant regulatory fines or penalties. Similarly, in the EU, for any products we have CE marked, future changes or updates to our products, which affect their safety or efficacy, may require new Notified Body certification before we may sell the revised product.

Our products may in the future be subject to product recalls. A recall of our products, either voluntarily or at the direction of the FDA or another governmental authority or regulatory authority, or the discovery of serious safety issues with our products, could have a significant adverse impact on us.

The FDA and international regulatory bodies have the authority to require the recall of commercialized products that are subject to FDA or foreign applicable regulation in the event of material deficiencies or defects in design or manufacture. We may also, on our own initiative, recall a product. The FDA, for example, requires that certain classifications of recalls be reported to the FDA within ten working days after the recall is initiated. In the case of FDA-approved tests or CE marked tests in the EU, a government-mandated or voluntary recall by us or one of our distributors could occur as a result of an unacceptable risk to health, component failures, malfunctions, manufacturing errors, design or labeling defects or other deficiencies and issues. Recalls of any of our products could impair our ability to produce our products in a cost-effective and timely manner, which would have an adverse effect on our reputation, business, financial condition and results of operations. We may be subject to liability claims, may be required to bear costs or may take other actions that may have a negative impact on our future sales and our ability to generate profits. We may initiate voluntary recalls involving our products in the future that we determine do not require notification to the FDA or a foreign regulatory authority. If the FDA or a foreign regulatory authority disagrees with our determinations, the FDA or a foreign regulatory authority could require us to report those actions and take enforcement action for failing to report the recalls when they were conducted. A future recall announcement could harm our reputation with customers and negatively affect our business, financial condition and results of operations.

If we initiate a correction or removal for one of our tests, issue a safety alert or undertake a field action or recall to reduce a risk to health imposed by the test, this could lead to increased scrutiny by the FDA and foreign regulatory authorities and our customers regarding the quality and safety of our tests and to negative publicity, including FDA or a foreign regulatory authority alerts, press releases or administrative or judicial actions. Furthermore, circulation of any such negative publicity could harm our reputation, be used by competitors against us in competitive situations and cause customers to delay purchase decisions or cancel orders.

Arterys, Inc., a company we acquired in 2022, has developed several medical devices that are regulated by the FDA and EU legislation governing medical devices. Arterys also distributes devices developed by third parties. If we identify an issue with, or propose changes to, one of these devices that impacts patient safety or causes us to undertake a field action or implement a recall, our business operations and reputation could be harmed in a meaningful way.

Our “research use only” and any potential “investigational use only” products could become subject to more onerous regulation by the FDA or other regulatory authorities in the future, which could increase our costs and delay our commercialization efforts, thereby materially and adversely affecting our business, financial condition and results of operations.

In the United States, some of our products are currently available, or may become available, for research use only, or RUO, or for investigational use only, or IVO, depending on the proposed application. We make our RUO and IVO products available to a variety of parties, including pharmaceutical and biotechnology companies and research institutes. Because RUO and IVO products are not intended for use in clinical practice and cannot be advertised or promoted for clinical or diagnostic claims, they are exempt from many regulatory requirements otherwise applicable to medical devices. In particular, while the FDA regulations require that RUO products be labeled “For Research Use Only. Not for use in diagnostic procedures,” and that IVO products be labeled “For Investigational Use Only. The performance characteristics of this product have not been established,” such products are not subject to the FDA’s pre- and post-market controls for medical devices.

A significant change in the laws governing RUO or IVO products or how they are enforced may require us to change our business model in order to maintain compliance. For instance, in November 2013 the FDA issued a guidance document entitled “Distribution of In Vitro Diagnostic Products Labeled for Research Use Only or Investigational Use Only,” or the RUO/IVO Guidance, which highlights the FDA’s interpretation that distribution of RUO or IVO products with any labeling, advertising or promotion that suggests that clinical laboratories can validate the test through their own procedures and subsequently offer it for clinical diagnostic use as an LDT is in conflict with the RUO or IVO status. The RUO/IVO Guidance further articulates the FDA’s position that any assistance offered in performing clinical validation or verification, or similar specialized technical support, to clinical laboratories, is in conflict with RUO or IVO status. If we engage in any activities that the FDA deems to be in conflict with the RUO or IVO status held by any of our products so labeled, we may be subject to immediate, severe and broad FDA enforcement action that would adversely affect our ability to continue operations. Accordingly, if the FDA finds that we are distributing our RUO or IVO products in a manner that is inconsistent with its RUO/IVO Guidance, we may be forced to stop distribution of our RUO/IVO tests until we are in compliance, which would reduce our revenue, increase our costs and adversely affect our business, financial condition and results of operations.

Even if we receive regulatory approval or certification of our products, we will continue to be subject to extensive regulatory oversight.

Medical devices are subject to extensive regulation by the FDA in the United States, European Union legislation in the European Economic Area, or EEA, enforced by the Competent Authorities of EEA countries, and comparable regulatory authorities in other territories where we do or may do business. If any of our products are approved by the FDA, or other comparable foreign regulatory authorities, or CE marked in accordance with EU legislation governing medical devices or IVDs, we will be required to timely file various reports. If these reports are not filed timely, regulators may impose sanctions and sales of our products may suffer, and we may be subject to product liability or regulatory enforcement actions, all of which could harm our business, financial condition and results of operations. In addition, as a condition of approving a PMA application, the FDA may also require some form of post-approval study or post-market surveillance, whereby the applicant conducts a follow-up study or follows certain patient groups for a number of years and makes periodic reports to the FDA on the clinical status of those patients when necessary to protect the public health or to provide additional safety and effectiveness data for the device. The product labeling must be updated and submitted in a PMA supplement as results, including any adverse event data from the post-approval study, become available. Failure to conduct or timely complete post-approval studies in compliance with applicable regulations, update the product labeling, or comply with other post-approval requirements could result in withdrawal of approval of the PMA, which would harm our business, financial condition and results of operations. Similar considerations and requirements apply in relation to those products we have CE marked in the EEA, or for any products we may CE mark in the future in accordance with the IVDR or the MDR.

The FDA, the FTC and comparable foreign regulatory authorities also regulate the advertising and promotion of medical devices to ensure that their promotional claims made are consistent with the applicable marketing authorizations or certification, that there are adequate and reasonable data to substantiate the claims, and that the promotional labeling and advertising is neither false nor misleading in any respect. If the FDA, FTC or a comparable foreign regulatory authority determines that any of our promotional claims are false, misleading, not substantiated or not permissible, we may be subject to enforcement actions and we may be required to revise our promotional claims and make other corrections or restitutions.

The FDA, state and foreign authorities have broad enforcement powers. Our failure to comply with applicable regulatory requirements could result in enforcement action by the FDA, state or foreign regulatory authorities, or actions by Notified Bodies in the EEA in relation to the CE Certificate of Conformity they have issued in accordance with EU legislation governing medical devices or IVDs, which may include any of the following sanctions:

- adverse publicity, warning letters, untitled letters, fines, injunctions, consent decrees and civil penalties;
- repair, replacement, refunds, recalls, termination of distribution, administrative detention or seizures of our products;
- operating restrictions, partial suspension or total shutdown of production;
- customer notifications or repair, replacement or refunds;
- refusing our requests for clearances, approvals or certification of new products, new intended uses or modifications to existing products;
- withdrawals of current clearances, approvals or certification, resulting in prohibitions on sales of our products;
- refusal to issue certificates needed to export products for sale in other countries; and
- criminal prosecution.

Any of these sanctions could also result in higher than anticipated costs or lower than anticipated sales of our products and have a material adverse effect on our business, financial condition and results of operations.

In addition, the FDA may change its clearance and approval policies, adopt additional regulations or revise existing regulations, or take other actions which may prevent or delay approval or clearance of our current or future products under development. For example, in November 2018, FDA officials announced forthcoming steps that the FDA intends to take to modernize the premarket notification pathway under Section 510(k) of the FDCA. Similar considerations apply in foreign countries.

Among other things, the FDA announced that it planned to develop proposals to drive manufacturers utilizing the 510(k) pathway toward the use of newer predicates. These proposals included plans to potentially sunset certain older devices that were used as predicates under the 510(k) clearance pathway, and to potentially publish a list of devices that have been cleared on the basis of demonstrated substantial equivalence to predicate devices that are more than 10 years old. In May 2019, the FDA solicited public feedback on these proposals. The FDA requested public feedback on whether it should consider certain actions that might require new authority, such as whether to sunset certain older devices that were used as

predicates under the 510(k) clearance pathway. These proposals have not yet been finalized or adopted, and the FDA may work with Congress to implement such proposals through legislation. Accordingly, it is unclear the extent to which any proposals, if adopted, could impose additional regulatory requirements on us that could delay our ability to obtain new 510(k) clearances, increase the costs of compliance, or restrict our ability to maintain our current clearances, or otherwise create competition that may negatively affect our business, financial condition and results of operations.

The FDA may establish performance criteria for classes of devices for which we or our competitors seek or currently have received clearance, and it is unclear the extent to which such performance standards, if established, could impact our ability to obtain new 510(k) clearances or otherwise create competition that may negatively affect our business, financial condition and results of operations.

The changes to the regulatory system implemented in the EU by the IVDR and the MDR include stricter requirements for clinical evidence and pre-market assessment of safety and performance, new classifications to indicate risk levels, requirements for third party testing by Notified Bodies, tightened and streamlined quality management system assessment procedures and additional requirements for the quality management system, additional requirements for traceability of products and transparency as well as a refined responsibility of economic operators. We would also be required to provide clinical data in the form of a clinical evaluation or performance report. Fulfillment of the obligations imposed by these Regulations may cause us to incur substantial costs. We may be unable to fulfill these obligations, or our Notified Body may consider that we have not adequately demonstrated compliance with our related obligations to merit the issuance of a CE Certificate of Conformity under the IVDR or the MDR for any of our products, or the continued use of any CE Certificate of Conformity issued under the IVDR or MDR.

Any new statutes, regulations or revisions or reinterpretations of existing regulations may impose additional costs or lengthen review times of our current or future products or make it more difficult to obtain clearance or approval for, manufacture, market or distribute our products.

The FDA's and other regulatory authorities' policies may change and additional government regulations may be promulgated that could prevent, limit or delay regulatory clearance, approval or certification of our diagnostic tests.

We also 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, including the potential impact of the U.S. Supreme Court's decision in *Loper Bright Enterprises vs. Raimondo*, which curtails the power of federal agencies to interpret the laws they administer.

We may never obtain approval or certification in foreign jurisdictions for any of our products and, even if we do, we may never be able to commercialize them in any other jurisdiction, which would limit our ability to realize their full market potential.

In order to eventually market any of our current or future products in any particular foreign jurisdiction, we must comply with numerous and varying regulatory requirements on a jurisdiction-by-jurisdiction basis regarding quality, safety, data privacy, performance and efficacy. In addition, products offered in one country may not be accepted by regulatory authorities in other countries. Approval and certification processes vary among countries and can involve additional product testing and validation and additional administrative review periods.

Seeking foreign regulatory clearance, authorization, approval or certification could result in difficulties and costs for us and require additional studies, trials or investigations which could be costly and time-consuming. Regulatory requirements and ethical approval obligations can vary widely from country to country and could delay or prevent the introduction of our products in those countries. If we or our collaborators fail to comply with regulatory requirements in international markets or to obtain and maintain required regulatory clearances, authorizations, approvals or certification in international markets, or if those approvals or certification are delayed, our target market will be reduced and our ability to realize the full market potential of our products will be unrealized.

Failure to comply with federal, state and foreign laboratory licensing requirements and the applicable requirements of the FDA or any other regulatory authority, could cause us to lose the ability to perform our tests, experience disruptions to our business, or become subject to administrative or judicial sanctions.

We are subject to CLIA, a federal law that regulates clinical laboratories that perform testing on specimens derived from humans for the purpose of providing information for the diagnosis, prevention or treatment of disease. CLIA regulations

establish specific standards with respect to personnel qualifications, facility administration, proficiency testing, quality control, quality assurance and inspections. Any testing subject to CLIA regulation must be performed in a CLIA certified laboratory. CLIA certification is also required in order for us to be eligible to bill state and federal healthcare programs, as well as commercial payers, for our tests. We have a current CLIA certificate to perform our tests at our laboratories in Chicago, Illinois, Atlanta, Georgia, Raleigh, North Carolina and Aliso Viejo, California. To maintain this certificate, we are subject to survey and inspection every two years. Moreover, CLIA inspectors may make random inspections of our laboratory from time to time. Similar considerations may apply in foreign countries.

We are also required to maintain clinical laboratory licenses to perform testing in Illinois, Georgia, and North Carolina. State laboratory laws establish standards for day-to-day operation of our clinical laboratories, including the training and skills required of personnel and quality control. In addition, some other states require our laboratories to be licensed in the state in order to test specimens from those states. In addition to Illinois, North Carolina and Georgia, our laboratories are licensed in California, Rhode Island, Pennsylvania, New York and Maryland. Although we have obtained licenses from states where we believe we are required to be licensed, it is possible that other states we are not aware of currently require out-of-state laboratories to obtain licensure in order to test specimens from the state, and that other states may adopt similar requirements in the future.

We may also be subject to regulations in foreign jurisdictions as we seek to expand international utilization of our tests or as such jurisdictions adopt new licensure requirements, which may require review of our tests in order to offer them or may have other limitations such as restrictions on the transport of specimens necessary for us to perform our tests that may limit our ability to make our tests available outside of the United States. Complying with licensure requirements in new jurisdictions may be expensive, time-consuming and subject us to significant and unanticipated delays.

Failure to comply with applicable clinical laboratory licensure requirements may result in a range of enforcement actions, including suspension, limitation or revocation of our CLIA certificate and/or state licenses, imposition of a directed plan of action, on-site monitoring, civil monetary penalties, criminal sanctions, inability to receive reimbursement from Medicare, Medicaid and commercial payers, as well as significant adverse publicity. Any sanction imposed under CLIA, its implementing regulations, or state or foreign laws or regulations governing clinical laboratory licensure or our failure to renew our CLIA certificate, a state or foreign license or accreditation, could have a material adverse effect on our business, financial condition and results of operations. Even if we were able to bring our laboratory back into compliance, we could incur significant expenses and potentially lose revenue in doing so.

In order to test specimens from New York, LDTs must be approved by the New York State Department of Health, or NYSDOH, on a product-by-product basis before they are offered, and versions of our xT and xF tests have been approved by NYSDOH. We will need to seek NYSDOH approval of any future LDTs we develop, or for modifications to our existing LDTs, and want to offer for clinical testing to New York residents, and there can be no assurance that we will be able to obtain such approval. As a result, we are subject to periodic inspection by the NYSDOH and are required to demonstrate ongoing compliance with NYSDOH regulations and standards. To the extent NYSDOH identifies any non-compliance and we are unable to implement satisfactory corrective actions to remedy such non-compliance, the State of New York could withdraw approval for our tests.

The College of American Pathologists, or CAP, maintains a clinical laboratory accreditation program. While not required to operate a CLIA-certified laboratory, many private insurers require CAP accreditation as a condition to contracting with clinical laboratories to cover their tests. In addition, some countries outside the United States require CAP accreditation as a condition to permitting clinical laboratories to test samples taken from their citizens. We have obtained CAP accreditation for our Chicago, Atlanta, Raleigh, North Carolina, and Aliso Viejo, California laboratories. In order to maintain CAP accreditation, we are subject to survey for compliance with CAP standards every two years. Failure to maintain CAP accreditation could have a material adverse effect on the sales of our tests and the results of our operations.

We are subject to numerous federal, state and foreign healthcare statutes and regulations; complying with such laws pertaining to our business is an expensive and time-consuming process, and any failure to comply could result in substantial penalties and a material adverse effect to our business, financial condition and results of operations.

Our operations are subject to other extensive federal, state, local and foreign laws and regulations, all of which are subject to change. These laws and regulations may include, among others:

- the federal Anti-Kickback Statute, or AKS, which prohibits knowingly and willfully offering, paying, soliciting or receiving remuneration, directly or indirectly, overtly or covertly, in cash or in kind (e.g. provision of free or discounted goods, services or items), in return for or to induce such person to refer an individual, or to purchase,

lease, order, arrange for or recommend purchasing, leasing or ordering, any good, facility, item or service that is reimbursable, in whole or in part, under a federal healthcare program. The term “remuneration” has been broadly interpreted to include anything of value, such as phlebotomy kits. Although there are a number of statutory exceptions and regulatory safe harbors protecting certain common activities from prosecution or other regulatory sanctions, the exceptions and safe harbors are drawn narrowly, and practices that involve remuneration that are alleged to be intended to induce referrals, purchases or recommendations of covered items or services may be subject to scrutiny if they do not qualify for an exception or safe harbor. Failure to meet all of the requirements of a particular applicable statutory exception or regulatory safe harbor does not make the conduct *per se* illegal under the AKS. Instead, the legality of the arrangement will be evaluated on a case-by-case basis based on a cumulative review of all its facts and circumstances. Several courts have held that if any one purpose of an arrangement involving remuneration is to induce referrals of federal healthcare covered business, the AKS has been violated. Moreover, a person or entity does not need to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation. Violations are subject to significant civil monetary penalties, plus up to three times the remuneration involved. Violations of the AKS may also result in criminal penalties, including additional fines and imprisonment of up to ten years, and exclusion from Medicare, Medicaid or other governmental healthcare programs;

- the Eliminating Kickbacks in Recovery Act of 2018, or EKRA, which prohibits knowingly and willfully soliciting or receiving any remuneration (including any kickback, bribe or rebate) directly or indirectly, overtly or covertly, in cash or in kind, in return for referring a patient or patronage to a laboratory; or paying or offering any remuneration (including any kickback, bribe or rebate) directly or indirectly, overtly or covertly, in cash or in kind, to induce a referral of an individual to a laboratory or in exchange for an individual using the services of that laboratory. EKRA was enacted to help reduce opioid-related fraud and abuse. However, EKRA defines the term “laboratory” broadly and without reference to any connection to substance use disorder treatment. The EKRA applies to all payers including commercial payers and government payers. Violations of EKRA are subject to significant fines and/or up to 10 years in jail, separate and apart from existing AKS regulations and penalties. The law includes a limited number of exceptions, some of which closely align with corresponding AKS exceptions and safe harbors, and others that materially differ. Currently, there is no regulation interpreting or implementing EKRA, nor any guidance released by a federal agency regarding the scope of EKRA. Accordingly, we cannot guarantee that our relationships with providers, sales representatives, or customers will not be subject to scrutiny or will withstand regulatory challenge under EKRA;
- the Stark Law, which prohibits a physician from making a referral for certain designated health services covered by the Medicare or Medicaid program, including laboratory and pathology services, if the physician or an immediate family member of the physician has a financial relationship with the entity providing the designated health services and prohibits that entity from billing, presenting or causing to be presented a claim for the designated health services furnished pursuant to the prohibited referral, unless an exception applies. Sanctions for violating the Stark Law include denial of payment, significant civil monetary penalties (on a per claim basis and additional penalties for a circumvention scheme), and exclusion from the federal healthcare programs;
- the federal Civil Monetary Penalties Law, which prohibits, among other things, the offering or transfer of remuneration to a Medicare or state healthcare program beneficiary if the person knows or should know it is likely to influence the beneficiary’s selection of a particular provider, practitioner or supplier of services reimbursable by Medicare or a state healthcare program, unless an exception applies. Violations can result in significant civil monetary penalties for each wrongful act;
- federal and state “Anti-Markup” rules, which, among other things, typically prohibit a physician or supplier billing for clinical or diagnostic tests (with certain exceptions) from marking up the price of a purchased test performed by another physician or supplier that does not “share a practice” with the billing physician or supplier;
- the federal Physician Payments Sunshine Act, which requires certain manufacturers of drugs, biologicals, and kits, medical devices or supplies that require premarket approval by or notification to the FDA, and for which payment is available under Medicare, Medicaid or the Children’s Health Insurance Program to report annually to CMS, information related to (i) payments and other transfers of value to physicians (defined to include doctors, dentists, optometrists, podiatrists and chiropractors), other healthcare professionals (such as physician assistants and nurse practitioners), and teaching hospitals; and (ii) ownership and investment interests in such manufacturers held by physicians and their immediate family members. Failure to submit required information may result in significant civil monetary penalties for any payments, transfers of value or ownership or investment interests that are not timely, accurately, and completely reported in an annual submission, and may result in liability under other federal laws or regulations;

- the federal government may bring a lawsuit under the False Claims Act, or the FCA, against any party whom it believes has knowingly or recklessly presented, or caused to be presented, a false or fraudulent request for payment from the federal government, or who has made a false statement or used a false record to get a claim for payment approved. The federal government and a number of courts have taken the position that claims presented in violation of certain other statutes, including the AKS or the Stark Law, can also be considered a violation of the FCA based on the theory that a provider impliedly certifies compliance with all applicable laws, regulations, and other rules when submitting claims for reimbursement. An FCA violation may provide the basis for the imposition of administrative penalties as well as exclusion from participation in governmental healthcare programs, including Medicare and Medicaid. A number of states including California have enacted laws that are similar to the federal FCA. Private individuals can bring FCA “*qui tam*” actions, on behalf of the government and such individuals, commonly known as “whistleblowers,” may share in amounts paid by the entity to the government in fines or settlement. When an entity is determined to have violated the FCA, the government may impose civil fines and penalties for each false claim, plus treble damages, and exclude the entity from participation in federal healthcare programs;
- the HIPAA fraud and abuse provisions, which created federal criminal statutes that prohibit, among other things, knowingly and willfully executing, or attempting to execute, a scheme to defraud any healthcare benefit program, including private insurers, knowingly and willfully embezzling or stealing from a healthcare benefit program, willfully obstructing a criminal investigation of a healthcare offense, and knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false, fictitious or fraudulent statement in connection with the delivery of or payment for healthcare benefits, items or services. A person or entity does not need to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation;
- HIPAA, as amended by HITECH, and their respective implementing regulations, which impose obligations on covered entities, including certain healthcare providers, health plans, and healthcare clearinghouses, as well as their respective business associates that create, receive, maintain or transmit individually identifiable health information for or on behalf of a covered entity, with respect to safeguarding the privacy, security and transmission of individually identifiable health information, and their covered subcontractors;
- federal and state laws related to, among other things, unlawful schemes to defraud, excessive fees for services, unlawful trade practices, insurance fraud, kickbacks, patient inducement and statutory or common law fraud restrict the provision of products, services or items for free or at reduced charge to government or non-government healthcare program beneficiaries. These laws and regulations relating to the provision of items or services for free are complex and are subject to interpretation by the courts and by government agencies;
- other federal and state fraud and abuse laws, such as state anti-kickback, self-referrals, false claims and anti-markup laws, any of which may extend to services reimbursable by any payer, including private insurers;
- state laws that prohibit other specified practices, such as billing physicians for tests that they order; providing tests at no or discounted cost to induce adoption; waiving co-insurance, co-payments, deductibles or other amounts owed by patients; billing a state healthcare program at a price that is higher than what is charged to other payers; or employing, exercising control over or splitting fees with licensed medical professionals; and
- similar foreign laws and regulations in the countries in which we operate or may operate in the future.

As a clinical laboratory, our business practices may face additional scrutiny from various government agencies such as the Department of Justice, the U.S. Department of Health and Human Services Office of Inspector General, or OIG, and CMS. Certain arrangements between clinical laboratories and referring physicians have been identified in fraud alerts issued by the OIG as implicating the AKS. The OIG has stated that it is particularly concerned about these types of arrangements because the choice of laboratory and the decision to order laboratory tests typically are made or strongly influenced by the physician, with little or no patient input. Moreover, the provision of payments or other items of value by a clinical laboratory to a referral source could be prohibited under the Stark Law unless the arrangement meets all criteria of an exception. The government has been active in enforcement of these laws against clinical laboratories.

Numerous states have enacted laws prohibiting business corporations, such as us, from practicing medicine and from employing or engaging physicians and other medical professionals (generally referred to as the prohibition against the corporate practice of medicine), which could include physician laboratory directors. These laws are designed to prevent interference in the medical decision-making process by anyone who is not a licensed medical professional. For example, the medical boards of certain states have indicated that determining the appropriate diagnostic tests for a particular condition and taking responsibility for the ultimate overall care of a patient, including making treatment options available to the patient, would constitute the unlicensed practice of medicine if performed by an unlicensed person. Violation of these laws may result in sanctions and civil or criminal penalties. It is possible that governmental authorities may conclude that our business practices, including our consulting and advisory board arrangements with physicians and other healthcare providers, a small

number of whom may receive stock or stock options as compensation for services provided, do not comply with current or future corporate practice of medicine statutes, regulations, agency guidance or case law.

The growth and international expansion of our business may increase the potential of violating applicable laws and regulations. The risk is further increased by the fact that many such laws and regulations have not been fully interpreted by the regulatory authorities or the courts, and their provisions are open to a variety of interpretations. Efforts to ensure that our internal operations and business arrangements with third parties comply with applicable laws and regulations will involve substantial costs. Any action brought against us for violation of these or other laws or regulations, even if we successfully defend against it, could cause us to incur significant legal expenses and divert our management's attention from the operation of our business. Any of the foregoing consequences could seriously harm our business, financial condition and results of operations. To the extent our business operations are found to be in violation of any of these laws or regulations, we may be subject to significant civil, criminal and administrative penalties, including, without limitation, damages, monetary fines, individual imprisonment, disgorgement of profits, possible exclusion from participation in Medicare, Medicaid and other healthcare programs, contractual damages, reputational harm, diminished profits and future earnings, additional reporting or oversight obligations if we become subject to a corporate integrity agreement or other agreement to resolve allegations of non-compliance with the law and curtailment or restructuring of our operations, any of which could adversely affect our ability to operate our business and pursue our strategy. If any of the healthcare providers or other parties with whom we interact or may interact in the future, are found not to be in compliance with applicable laws and regulations, they may be subject to criminal, civil or administrative sanctions, including exclusions from participation in various healthcare programs, which could also negatively affect our business, financial condition and results of operations.

We have received requests for medical records and billing information from certain Unified Program Integrity Contractors, or UPICs, regarding clinical diagnostic services provided by Tempus to patients enrolled in the Medicare and Medicaid programs. Federal and state governments continue to pursue enforcement policies resulting in a significant number of investigations, inspections, audits, citations of regulatory deficiencies, and other regulatory sanctions including demands for refund of overpayments, terminations from the Medicare and Medicaid programs, bans on Medicare and Medicaid payments for new admissions, and civil monetary penalties or criminal penalties. These policies may impact our business. For example, on May 19, 2022, we received a subpoena from the Office of the Ohio Attorney General. The subpoena required production of certain billing and patient records associated with nine Ohio Medicaid patients who received our clinical diagnostic tests between 2019 and 2022. We provided responsive documents in June 2022 and have not received any additional inquiry since that time. Similarly, on March 4, 2024, we received a Civil Investigative Demand, or CID, from the U.S. Attorney's Office for the Eastern District of New York. The CID requested documents and other information related to our compliance with the False Claims Act, the Anti-Kickback statute, and in particular 42 C.F.R. § 414.510(b), which is commonly referred to as the Medicare 14-Day Rule. We provided an initial production on April 4, 2024, and have continued to produce responsive documents on a rolling basis since that time. While we believe our programs and payments comply with the Anti-Kickback statute, no assurance can be given as to the timing or outcome of the government's investigation, or that it will not result in a material adverse effect on our business.

In addition, we expect audits under the CMS Recovery Audit Contractor, or RAC, program, the CMS Targeted Probe and Educate, or TPE, program, the UPIC program and other federal and state audits evaluating the medical necessity of services to further intensify the regulatory environment surrounding the healthcare industry as third-party firms engaged by CMS and others conduct extensive reviews of Tempus' claims data and medical and other records to identify improper payments to healthcare providers under the Medicare and Medicaid programs. If we fail to comply with the extensive laws, regulations and prohibitions applicable to our businesses, we could become ineligible to receive government program reimbursement, suffer civil or criminal penalties, or be required to make significant changes to our operations and refund certain payments we have received. In addition, we could be forced to expend considerable resources responding to investigations, audits or other enforcement actions related to these laws, regulations or prohibitions.

Our status as both a healthcare company and a technology company presents unique complexities when attempting to comply with these myriad laws and regulations. For example, certain data services we provide as a technology company may result in compensating other healthcare providers for access to data or the right to commercialize de-identified data. While such services, standing alone, appear routine, the compliance issues become more complex when considering our status as a healthcare provider that performs clinical diagnostic testing on behalf of healthcare providers. We have implemented programs to ensure we comply with all applicable laws and regulations notwithstanding these complexities; however, we cannot guarantee we will be successful in doing so, or that government enforcement agencies will agree that our efforts have been sufficient. Accordingly, we may be subject to enforcement actions that could materially impact our reputation, operations, and results.

If the validity of an informed consent from patients regarding our tests was challenged, we could be forced to stop offering our products or using our resources, and our business, financial condition and results of operations could be negatively affected.

We seek to ensure that all data and biological samples that we receive have been collected from patients, subjects or participants who have provided the necessary informed consent for purposes that extend to our development activities. In many instances, our ability to obtain these consents requires the physician or hospital system ordering the diagnostic system to obtain the consent of the patient and to attest that they have done so on our requisition forms. We also have certain relationships where data and samples, and certain data licensed to us by third parties, are provided to us in a de-identified manner. The collection and analysis of data and samples in many different jurisdictions results in complex legal questions regarding the adequacy of informed consent and the status of genetic material. Therefore, with respect to data and samples received from our customers, we rely on physicians and hospital systems to comply, and with regard to data received from our suppliers, we rely on these third parties to comply, with the informed consent requirements and with applicable local law regarding informed consent. The subject's informed consent obtained in any particular jurisdiction could be challenged in the future, and that consent could prove invalid, unlawful or otherwise inadequate for our purposes. Any findings against us, or our customers or suppliers, could deny us access to or force us to stop using some of our data and clinical samples, which would hinder our product development efforts, potentially involve us in costly and prolonged litigation, result in reputational harm and adversely affect our business, financial condition and results of operations.

We may be subject to fines, penalties, licensure requirements, or legal liability, if it is determined that through our test reports we are practicing medicine without a license.

Many of our test reports delivered to physicians provide information regarding therapies and clinical trials that physicians may use in making treatment decisions for their patients and certain other reports provide pharmacogenomic information. We make members of our organization available to discuss the information provided in the reports. Certain state laws prohibit the practice of medicine without a license. Our customer service representatives and medical affairs team provide support to our customers, including assistance in interpreting the test report results. A governmental authority or other parties could allege that the identification of available therapies and clinical trials in our reports and the related customer service we provide constitute the practice of medicine. A state may seek to have us discontinue the inclusion of certain aspects of our test reports or the related services we provide, or subject us to fines, penalties, or licensure requirements. Any determination that we are practicing medicine without a license may result in significant liability to us, and our business, financial condition and results of operations would be harmed.

Our billing and claim processing are complex and time-consuming, and any delay in submitting claims or failure to comply with applicable billing requirements could hinder collection and have an adverse effect on our revenue.

Billing for our diagnostic tests is complex, time-consuming and expensive. Depending on the billing arrangement and applicable law, we bill various payers, such as Medicare, Medicaid, health plans, insurance companies, hospital systems, providers, and patients, all of which may have different billing requirements. Several factors make the billing process complex, including:

- differences between the list prices for our test, the reimbursement rates of payers, the amounts we charge healthcare institutions directly, and the cost to patients who pay for our tests out-of-pocket;
- compliance with complex federal, state and foreign regulations related to billing government healthcare programs, including Medicare and Medicaid or comparable foreign programs, to the extent our tests are covered by such programs;
- differences in coverage among payers and the effect of patient co-payments or co-insurance;
- differences in information, pre-authorization and other billing requirements among payers;
- changes to codes and coding instructions governing our tests;
- incorrect or missing billing information; and
- the resources required to manage the billing and claim appeals process.

These billing complexities and the related uncertainty in obtaining payment for our tests could negatively affect our revenue and cash flow, our ability to achieve profitability and the consistency and comparability of our results of operations. In addition, if claims for our tests are not submitted to payers on a timely basis, or if we fail to comply with applicable billing requirements, it could have an adverse effect on our business, financial condition and results of operations.

In addition, the coding procedure used by third-party payers to identify various procedures, including our tests, during the billing process is complex, does not adapt well to our tests and may not enable coverage and adequate reimbursement rates. Third-party payers usually require us to identify the test for which we are seeking reimbursement using a CPT code. CPT coding plays a significant role in how our diagnostic tests are reimbursed both from commercial and governmental payers. For example, historically, no CPT code comprehensively describes our NGS oncology tests. In the past, we submitted claims using individual codes or combinations of codes based on the cancer subtype profiled. Over time, in response to guidance from payers and our local MAC, we transitioned from using individual gene codes, or combinations of individual gene codes, to using “panel” CPT codes. With the introduction of new codes that are potentially applicable to comprehensive genomic profiling tests like the ones we offer, we are in the process of updating our approach again. Despite our diligence in developing a comprehensive billing strategy that accurately describes the tests we provide, payers, such as the Local MACs, have in the past and may in the future disagree with our CPT code selection and instruct us to submit our claims using a different designated CPT code. Any disputes over appropriate coding, or requirements that we submit claims under codes with lower reimbursement rates, may materially adversely affect our business financial condition and results of operations. Use of coding for billing our products that does not describe a specific test, requires the claim to be examined to determine what test was provided, whether the test was appropriate and medically necessary, and whether payment should be rendered, which may require a letter of medical necessity from the ordering physician. This process has in the past and may in the future result in a delay in processing the claim, a lower reimbursement amount or denial of the claim. For example, we continue to appeal the denials of certain of our NGS oncology tests by the Local MAC. Because billing third-party payers for our tests is an unpredictable, challenging, time-consuming and costly process, we may face long collection cycles and the risk that we may never collect at all, either of which could adversely affect our business, financial condition and results of operations, and we may have to increase collection efforts and incur additional costs.

Because next generation genomic sequencing is a rapidly evolving area of medicine, and because clinical treatment guidelines continue to develop, any changes to, or interpretations of, applicable billing and coding guidance, rules, policies, and procedures may impact our business. Tempus offers multiple diagnostic tests, which enable ordering healthcare providers to sequence both a cancer patient’s tissue and blood. Healthcare providers may order multiple tests, either concurrently or longitudinally, even when those distinct tests cover similar genes. Similarly, when a treating healthcare provider orders our tissue-based test, we can provide, and historically have provided when available, distinct test results for DNA and RNA. Effective January 1, 2023, we began billing these tests under separate codes based on American Medical Association guidance and the National Correct Coding Initiative Manual Provider instructions. As of December 31, 2024, approximately 50% of the liquid biopsy tests we provide are ordered in proximity to a solid tissue-based test, and over 85% of our solid tissue-based tests include both RNA and DNA results. In each case, while the ordering physician attests to each distinct test’s medical necessity, there is no guarantee that our retrospective or prospective billing practices will not be challenged or reversed, such as by a demand for repayment, recoupment, or prospective billing policies. Any such attempts could adversely affect our results and operations.

Changes in healthcare laws, regulations and policies could increase our costs, decrease our sales and revenue and negatively impact reimbursement for our tests.

In March 2010, the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Affordability Reconciliation Act, or the ACA, became law. This law substantially changed the way health care is financed by both commercial payers and government payers, and significantly impacted our industry.

Since its enactment, there have been efforts to repeal, replace, and amend all or part of the ACA. For example, on August 16, 2022, the Inflation Reduction Act of 2022, or IRA, was signed into law, which among other things extends enhanced subsidies for individuals purchasing health insurance coverage in the ACA marketplaces through plan year 2025. The IRA also eliminates the “donut hole” under the Medicare Part D program beginning in 2025 by significantly lowering the beneficiary maximum out-of-pocket cost and establishing a new manufacturer discount program. It is unclear how any additional healthcare reform measures of the Biden administration will impact the ACA and our business.

In addition, other legislative changes have been proposed and adopted since the ACA was enacted. On August 2, 2011, the Budget Control Act of 2011 was signed into law, which, among other things, reduced Medicare payments to providers by 2% per fiscal year, effective on April 1, 2013 and, due to subsequent legislative amendments to the statute, will remain in effect through 2032.

We anticipate there will continue to be proposals by legislators at both the federal and state levels, particularly in light of the recent U.S. Presidential and Congressional elections, regulators and commercial and government payers to reduce healthcare costs while expanding individual healthcare benefits. Certain of these changes could impose additional limitations on the prices we will be able to charge for our tests, the coverage of, or the amounts of reimbursement available for our tests from commercial and government payers.

We face risks related to handling of hazardous materials and other regulations governing environmental safety.

Our operations are subject to complex and stringent environmental, health, safety and other governmental laws and regulations that both public officials and private individuals may seek to enforce. Our activities that are subject to these regulations include, among other things, our use of hazardous materials in manufacturing and in our products, and the generation, transportation and storage of waste. We could discover that we or our suppliers are not in material compliance with these regulations. Existing laws and regulations may also be revised or reinterpreted, or new laws and regulations may become applicable to us, whether retroactively or prospectively, that may have a negative effect on our business, financial condition and results of operations. It is also impossible to eliminate completely the risk of accidental environmental contamination or injury to individuals. In such an event, we could be liable for any damages that result, which could adversely affect our business, financial condition and results of operations.

We could be adversely affected by violations of the FCPA and other anti-bribery laws.

We are subject to the FCPA, which prohibits companies and their intermediaries from making payments in violation of law to non-U.S. government officials for the purpose of obtaining or retaining business or securing any other improper advantage, as a result of our international operations. We are also subject to similar anti-bribery laws in the jurisdictions in which we operate, including the United Kingdom's Bribery Act of 2010, which also prohibits commercial bribery and makes it a crime for companies to fail to prevent bribery. These laws are complex and far-reaching in nature, and, as a result, we cannot assure that we would not be required in the future to alter one or more of our practices to be in compliance with these laws or any changes in these laws or the interpretation thereof. Any violations of these laws, or allegations of such violations, could disrupt our operations, involve significant management distraction, cause us to incur significant costs and expenses, including legal fees, and result in a material adverse effect on our business, financial condition and results of operations. We could also suffer severe penalties, including criminal and civil penalties, disgorgement and other remedial measures.

Risks Related to Our Intellectual Property

If we are unable to obtain, maintain and enforce sufficient intellectual property protection for our Platform and products, or if the scope of the intellectual property protection obtained is not sufficiently broad, our competitors or other third parties could develop and commercialize products similar or identical to ours, and our ability to successfully commercialize our products may be impaired.

We rely on patent protection as well as trademark, copyright, trade secret and other intellectual property rights protection and contractual restrictions to protect our Platform, products and other proprietary technologies, all of which provide limited protection and may not adequately protect our rights or permit us to gain or keep any competitive advantage. If we fail to protect our intellectual property, third parties may be able to compete more effectively against us. In addition, we have incurred and may continue to incur substantial litigation costs in our attempts to recover or restrict use of our intellectual property.

To the extent our intellectual property offers inadequate protection, or is found to be invalid or unenforceable, we would be exposed to a greater risk of direct competition. If our intellectual property does not provide adequate coverage of our competitors' products, our competitive position could be adversely affected, as could our business, financial condition and results of operations. Both the patent application process and the process of managing patent disputes can be time-consuming and expensive. Our pending and future owned and licensed patent applications may not result in patents being issued which protect our technology, effectively prevent others from commercializing competitive technologies or otherwise provide any competitive advantage. In fact, patent applications may not issue as patents at all. In addition, the coverage claimed in a patent application can be significantly reduced before the patent is issued, and its scope can be reinterpreted after issuance.

As is the case with other biotechnology companies, our success depends in part on our ability to obtain and maintain protection of the intellectual property we own solely and may own jointly with others or we have licensed and may continue to license from others, particularly patents, in the United States and other countries with respect to our products and technologies. We apply for patents covering our products and technologies and uses thereof, as we deem appropriate. However, obtaining and enforcing patents, and specifically biotechnology patents, is costly, time-consuming and complex,

and we may fail to apply for patents on important products, services and technologies in a timely fashion or at all, or we may fail to apply for patents in potentially relevant jurisdictions. We may not be able to obtain or maintain patent applications and patents due to the subject matter claimed in such patent applications and patents being in disclosures in the public domain. In some cases, the inventions we attempt to patent may have been previously discovered by others and entered the public domain, which may preclude our ability to obtain patent protection for such inventions. We may not be able to file and prosecute all necessary or desirable patent applications, or maintain, enforce and license any patents that may issue from such patent applications, at a reasonable cost or in a timely manner. It is also possible that we will fail to identify patentable aspects of our research and development output before it is too late to obtain patent protection. Although we enter into nondisclosure and confidentiality agreements with parties who have access to confidential or patentable aspects of our research and development output, such as our employees, corporate collaborators, outside scientific collaborators, contract manufacturers, consultants, advisors and other third parties, any of these parties may breach these agreements and disclose such output before a patent application is filed, thereby jeopardizing our ability to seek patent protection. Moreover, we may not have the right to control the preparation, filing and prosecution of patent applications, or to maintain the rights to patents licensed to us. Therefore, these patents and applications may not be prosecuted and enforced in a manner consistent with the best interests of our business.

We own or license numerous U.S. patents and pending U.S. patent applications, with international counterparts in certain countries. It is possible that our or our licensors' pending patent applications will not result in issued patents in a timely fashion or at all, and even if patents are granted, they may not provide a basis for intellectual property protection of commercially viable products or services, may not provide us with any competitive advantages, or may be challenged and invalidated by third parties. It is possible that others will design around our current or future patented technologies to circumvent our owned or licensed patents by developing similar or alternative technologies or therapeutics in a non-infringing manner. If the patent protection provided by the patents and patent applications we own or license is not sufficiently broad to impede such competition, our ability to successfully commercialize our products could be negatively affected, which could have a material adverse effect on our business, financial condition and results of operations. Some of our patent rights may be challenged in the future, including at the United States Patent and Trademark Office, or USPTO, in post-grant proceedings, at the European Patent Office, or EPO, in opposition proceedings. We may not be successful in defending any such challenges made against our owned or licensed patents or patent applications. Any successful third-party challenge to such patent rights could result in their unenforceability or invalidity and increased competition to our business. We have challenged and may choose to challenge the patents or patent applications of third parties. The outcome of patent litigation or other proceeding can be uncertain, and any attempt by us to enforce our patent rights against others or to challenge the patent rights of others may not be successful, or, if successful, may take substantial time and result in substantial cost, and may divert our efforts and attention from other aspects of our business.

The patent positions of life sciences companies can be highly uncertain and involve complex legal and factual questions for which important legal principles remain unresolved. As a result, the issuance, scope, validity, enforceability and commercial value of any patent rights are highly uncertain. No consistent policy regarding the breadth of claims allowed in such companies' patents has emerged to date in the United States or elsewhere. Courts frequently render opinions in the biotechnology field that may affect the patentability of certain inventions or discoveries, including opinions that may affect the patentability of methods for analyzing or comparing DNA sequences.

In particular, the patent positions of companies engaged in the development and commercialization of genomic and algorithmic diagnostic tests, like our current products and services, and our future products, are particularly uncertain. Various courts, including the U.S. Supreme Court, have rendered decisions that affect the scope of patentability of certain inventions or discoveries relating to certain diagnostic tests and related methods. These decisions state, among other things, that a patent claim that recites an abstract idea, natural phenomenon or law of nature (for example, the relationship between particular genetic variants and cancer) are not themselves patentable. Precisely what constitutes an abstract idea, natural phenomenon or law of nature is uncertain, and it is possible that certain aspects of genetic or algorithmic diagnostics tests would be found not patentable. Accordingly, the evolving legal and administrative standards around the world, including in the United States may adversely affect our ability to obtain patents and may facilitate third-party challenges to any owned or licensed patents. The laws of some foreign jurisdictions do not protect intellectual property rights to the same extent as the laws of the United States, and we may encounter difficulties in protecting and defending such rights in foreign jurisdictions. The legal systems of many foreign jurisdictions do not favor the enforcement of patent rights and other intellectual property protection, particularly those relating to biotechnology, which could make it difficult for us to stop the infringement of our patent rights and other violations of our intellectual property rights thereunder. Proceedings to enforce our patent rights and other intellectual property protection in foreign jurisdictions could result in substantial cost and divert our efforts and attention from other aspects of our business.

Changes in patent law in the United States and other jurisdictions could diminish the value of patents in general, thereby impairing our ability to protect our Platform and products.

Changes in either the patent laws or in interpretations of patent laws in the United States or other countries or regions may diminish the value of our intellectual property. We cannot predict the breadth of claims that may be allowed or enforced in our patents or in third-party patents. We may not develop additional proprietary products, methods and technologies that are patentable.

Assuming that other requirements for patentability are met, prior to March 16, 2013, in the United States, the first to invent the claimed invention was entitled to the patent, while outside the United States, the first to file a patent application was entitled to the patent. On or after March 16, 2013, under the Leahy-Smith America Invents Act, or the America Invents Act, enacted in September 16, 2011, the United States transitioned to a first inventor to file system in which, assuming that other requirements for patentability are met, the first inventor to file a patent application will be entitled to the patent on an invention regardless of whether a third party was the first to invent the claimed invention. A third party that files a patent application in the USPTO on or after March 16, 2013, but before us could therefore be awarded a patent covering an invention of ours even if we had made the invention before it was made by such third party. This will require us to be cognizant of the time from invention to filing of a patent application. Since patent applications in the United States and most other countries are confidential for a period of time after filing or until issuance, we cannot be certain that we or our licensors were the first to either (i) file any patent application related to our products or (ii) invent any of the inventions claimed in our or our licensor's patents or patent applications.

The America Invents Act also includes a number of significant changes that affect the way patent applications are prosecuted and also affect patent litigation. These include allowing third-party submission of prior art to the USPTO during patent prosecution and additional procedures to challenge the validity of a patent by USPTO administered post-grant proceedings, including post-grant review, *inter partes* review and derivation proceedings, to attack the validity of a patent. Because of a lower evidentiary standard in USPTO proceedings compared to the evidentiary standard in United States federal courts necessary to invalidate a patent claim, a third party could potentially provide evidence in a USPTO proceeding sufficient for the USPTO to hold a claim invalid even though the same evidence might not be sufficient to invalidate the claim if presented in a district court action. Accordingly, third parties have used and may continue to use the USPTO proceedings to invalidate our patent claims that would not have been invalidated if first challenged by the third party in a district court action. Therefore, the America Invents Act and its implementation could increase the uncertainties and costs surrounding our or our licensors' prosecution of patent applications and enforcement or defense of issued patents, all of which could have a material adverse effect on our business, financial condition and results of operations.

The patent positions of companies engaged in the development and commercialization of biotechnology and software are particularly uncertain. Court rulings may narrow the scope of patent protection available in certain circumstances and weaken the rights of patent owners in certain situations. We cannot predict how decisions by the courts, the U.S. Congress or the USPTO may impact the value of our patents. Any similar adverse changes in the patent laws of other jurisdictions could also have a material adverse effect on our business, financial condition and results of operations. Depending on future actions by the U.S. Congress, the federal courts and the USPTO, the laws and regulations governing patents could change in unpredictable ways that could have a material adverse effect on our existing patent portfolio and our ability to protect and enforce our intellectual property in the future. Any of the foregoing could have a material adverse effect on our business, financial condition and results of operations.

Issued patents covering our Platform or products could be found invalid or unenforceable if challenged.

Our owned and licensed patents and patent applications may be subject to priority, validity, inventorship and enforceability disputes. If we or our licensors are unsuccessful in any of these proceedings, such patents and patent applications may be narrowed, invalidated or held unenforceable and we may be required to obtain licenses from third parties, which may not be available on commercially reasonable terms or at all, or we may be required to cease the development, manufacture and commercialization the products we may develop. Any of the foregoing could have a material adverse effect on our business, financial condition and results of operations.

The issuance of a patent is not conclusive as to its inventorship, scope, validity or enforceability and our owned and licensed patents may be challenged in courts or patent offices in the United States and abroad. Some of our owned or licensed patent rights may be challenged at a future point in time in opposition, derivation, re-examination, *inter partes* review, post-grant review or interference proceedings and other similar proceedings in foreign jurisdictions. Any successful third-party challenge to our patent rights in this or any other proceeding could result in the narrowing, unenforceability or invalidity, in whole or in part, of such patent rights, which may lead to increased competition to our business, which could harm our

business, financial condition and results of operations. In addition, if the breadth or strength of protection provided by our patents and patent applications is threatened, regardless of the outcome, it could dissuade companies from collaborating with us to license, develop or commercialize our current or future products.

We may not be aware of all third-party intellectual property rights potentially relating to our Platform and products. Publications of discoveries in the scientific literature often lag behind the actual discoveries, and patent applications in the United States and other jurisdictions are typically not published until approximately 18 months after filing or, in some cases, not until such patent applications issue as patents. We might not have been the first to make the inventions covered by each of our pending patent applications and we might not have been the first to file patent applications for these inventions. To determine the priority of these inventions, we may participate in interference proceedings, derivation proceedings or other post-grant proceedings declared by the USPTO that could result in substantial cost to us. The outcome of such proceedings is uncertain. No assurance can be given that other patent applications will not have priority over our patent applications. In addition, changes to the patent laws of the United States allow for various post-grant opposition proceedings that have not been extensively tested, and their outcome is therefore uncertain. Our licensors may also license patent rights to others, and we may not be aware of such licenses before they are granted or such licenses may be subject to disputes or uncertainties that affect patent rights licensed by us or could limit our ability to enforce such patent rights. If third parties bring actions against our owned or licensed patent rights, we could experience significant costs and management distraction.

In patent litigation in the United States or abroad, defendant counterclaims alleging invalidity or unenforceability are commonplace. Grounds for a validity challenge could be an alleged failure to meet any of several statutory requirements, including lack of novelty, obviousness, written description, non-enablement or failure to claim patent-eligible subject matter. Grounds for an unenforceability assertion could include an allegation that someone connected with prosecution of the patent withheld relevant information from the USPTO or made a misleading statement during prosecution. Similar claims may also be raised before administrative bodies in the United States or abroad, even outside the context of litigation, through mechanisms including re-examination, post-grant review and equivalent proceedings in foreign jurisdictions (e.g., opposition proceedings). Such proceedings could result in revocation or amendment to our patent rights in such a way that they no longer cover our Platform and products. The outcome of patent litigation or patent office proceedings following assertions of invalidity and unenforceability is unpredictable. With respect to the validity question, for example, we cannot be certain that there is no invalidating prior art, of which we and our licensing partners and the patent examiner were unaware during prosecution. If a third party 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 our Platform and products. Such a loss of patent protection could have a material adverse impact on our business, financial condition and results of operations.

We and our licensors may initiate or become involved in legal proceedings against a third party to enforce a patent covering our Platform or one of our products. Defendants in such proceedings could counterclaim that the patents covering our Platform or product are invalid or unenforceable and could institute legal proceedings to challenge such patents both in court and before patent offices.

The intellectual property landscape in the next generation sequencing, generative AI, and other fields in which we operate continues to evolve in ways that may impact our business. For example, we are aware of patent litigation involving certain disciplines in which we operate, such as liquid biopsy sequencing methods and minimal residual disease testing methods. Many of our competitors are or have been party to these suits, including Guardant Health, Inc., or Guardant, Haystack Oncology, Inc., Invitae Corp., Illumina, Inc., Natera, Inc., NeoGenomics Laboratories, Inc., Personalis, Inc., TwinStrand Biosciences, Inc., and others, and, as a result, we have monitored and continue to monitor their developments and their potential impact on us. In addition, on June 11, 2024, Guardant filed a complaint for patent infringement against us alleging that the Tempus xF, Tempus xF+, Tempus xM Monitor and Tempus xM MRD products use liquid biopsy technology that infringes five Guardant U.S. patents. The complaint seeks injunctive relief, unspecified monetary damages (including enhanced damages), a future mandatory royalty, costs and attorneys' fees. Given the uncertainty of outcomes of patent litigation disputes, we have not determined whether our products and services could be subject to potential additional claims of patent infringement based on the patents at issue in these or other cases, whether we may need to modify or change any existing or planned sequencing procedures, or whether any of the patents at issue are valid or enforceable against us. However, it is possible that we will be subject to additional claims of patent infringement and that we may need to either modify our existing or future sequencing methods or license intellectual property from third parties, both of which could be time consuming and expensive.

From time to time we may receive notifications from third parties purportedly asserting certain intellectual property rights with respect to our products and services. For example, on September 21, 2023, SEngine Precision Medicine LLC (including its predecessor corporation SEngine Precision Medicine, Inc.), or SEngine, a company we acquired on October 3, 2023, received a letter from an attorney representing HUB Organoids IP B.V., or HUB Organoids, which states that SEngine's PARIS® test methodologies "appear to share similarities with methods that the HUB has used in its own organoid

work.” Similarly, on January 30, 2024, we received a letter from an attorney representing Molecular Loop Biosciences, Inc., which states that “[a]fter reviewing specific products made, used or sold by Tempus, Molecular Loop believes that Tempus requires a license to several of the patents in Molecular Loop’s patent portfolio.” Ambry Genetics has also received a letter from Molecular Loop. While the letter received on behalf of HUB Organoids contains no specific allegations that SEngine infringes certain patents controlled by HUB Organoids referenced in the letter, and while the letters received on behalf of Molecular Loop contains only generalized allegations that Tempus and Ambry Genetics may infringe certain patents controlled by Molecular Loop referenced in the letters, and while we have received and may in the future receive letters alleging patent infringement from other third parties, if any claims against us were made by these parties, including any claim that any portion of our products and services infringes any of the referenced patents, or any other patents held by a third party, we would defend against such claims, however, there can be no assurances that any such defense would be successful. Moreover, if we are subject to claims of patent infringement, we may need to modify existing methods governing use of our products and services, or license third party intellectual property, at some point in the future, which may be time consuming and expensive or may not be technically feasible.

We rely on licenses from third parties to provide certain products, and if we lose these licenses or if our rights under these licenses are limited, then our business will be adversely impacted.

We are, and we may acquire companies that are, party to various license agreements that grant us rights to use certain intellectual property, including de-identified patient data, AI software, and certain patents and patent applications, typically in certain specified fields of use. Such license agreements impose, and future agreements may impose, various obligations, such as diligence, development, payment, royalty, sublicensing and other obligations on us in order to maintain the licenses. We may need to obtain additional licenses from others to advance our research, development and commercialization activities. Our future licenses may not provide us with exclusive rights to use the licensed intellectual property and technology, or may not provide us with exclusive rights to use such intellectual property and technology in all relevant fields of use and in all territories in which we may wish to develop or commercialize our technology in the future. As a result, we may not be able to prevent competitors or other third parties from developing and commercializing competitive products, including in territories covered by our licenses.

If these licenses are terminated, or if the underlying intellectual property rights fail to provide the intended rights and protections, our ability to develop and commercialize products and technology covered by these license agreements would be limited or lost, and our competitors or other third parties might have the freedom to develop, produce, seek regulatory approval or certification of, or to market, products identical or similar to ours and we may be required to cease our development and commercialization activities. Our actual or potential licensors could also take action with respect to our licensed intellectual property that may decrease the value of such licensed intellectual property. Any of the foregoing could have a material adverse effect on our business, financial condition and results of operations.

Moreover, disputes could arise with respect to any aspect of our license agreements, including:

- the scope of rights granted under the license agreement and other interpretation-related issues;
- our financial or other obligations under the license agreement;
- the extent to which our Platform, products, and processes infringe, misappropriate, or otherwise violate the intellectual property of the licensor that is not subject to the licensing agreement;
- the licensing of patent and other rights controlled by our licensors or developed under our collaborative development relationships to others;
- the sublicensing of patent and other rights;
- the inventorship and ownership of inventions and know-how licensed to us or resulting from the joint creation or use of intellectual property by our licensors, us and/or our partners; and
- the validity, enforceability or priority of licensed patent rights.

If we do not prevail in such disputes, we may lose any of such license agreements, the license agreements may not be meaningful for our business and operations, and we may be subject to unnecessary or additional payment obligations.

In addition, the agreements under which we currently license intellectual property or technology from third parties are complex, and certain provisions in such agreements could be susceptible to multiple interpretations. The resolution of any such contract interpretation disagreement could narrow what we believe to be the scope of our rights to the relevant intellectual property or technology, or increase what we believe to be our financial or other obligations under the relevant agreement, either of which could have a material adverse effect on our business, financial condition and results of operations.

Moreover, if disputes over licensed intellectual property impair our ability to enforce licensed intellectual property against third parties or use it to defend ourselves in litigation, the value of such licensed intellectual property may be diminished.

Additionally, our licenses may be subject to certain rights of third parties, and, as a result, our current and future licenses may not provide us with exclusive rights to use the licensed intellectual property and technology. Such licenses may be subject to reservations of rights including certain non-commercial rights reserved by universities and certain rights retained by the U.S. government, including march-in rights. Patents licensed to us could be put at risk of being invalidated or interpreted narrowly in litigation filed by or against our licensors or another licensee or in administrative proceedings brought by or against our licensors or another licensee in response to such litigation or for other reasons. As a result, we may not be able to prevent competitors or other third parties from developing and commercializing competitive products, including in territories covered by our licenses.

If we fail to maintain our current licensing arrangements on commercially acceptable terms, we may be unable to successfully develop and commercialize the affected product, which could have a material adverse effect on our business, financial condition and results of operations. If any of these license agreements is terminated, if the licensor fails to abide by the terms of the license agreement, if the licensor fails to prevent infringement, misappropriation, or other violations by third parties, or if the licensed patent or other rights are found to be invalid or unenforceable, we may lose our rights to develop and market our technology, may be unable to achieve our business goals and our results of operations and financial condition could be adversely affected. In addition, we may seek to obtain additional licenses from our licensors and, in connection with obtaining such licenses, we may agree to amend our existing licenses in a manner that may be more favorable to the licensors, including by agreeing to terms that could enable third parties, including our competitors, to receive licenses to a portion of the intellectual property that is subject to our existing licenses and to compete with our products. Absent the license agreements, we could infringe, misappropriate or otherwise violate patents or other intellectual property rights subject to those agreements, and if the license agreements are terminated, we may be subject to litigation by the licensor. Litigation could result in substantial costs and be a distraction to management. If we do not prevail, we may be required to pay damages, including treble damages, attorneys' fees, costs and expenses, royalties or, be enjoined from selling our products and services, including our tests, which could adversely affect our ability to offer products and our business, financial condition and results of operations.

If we cannot license and maintain rights to use third-party intellectual property on reasonable terms, we may not be able to successfully commercialize our products. Our licensed or acquired technology may lose value or utility over time.

From time to time, we may identify third-party intellectual property we may need, including to develop or commercialize new products. We may also need to negotiate licenses before or after introducing a commercial product, and we may not be able to obtain necessary licenses to such intellectual property. The licensing or acquisition of third party intellectual property rights is a competitive area, and several more established companies may pursue strategies to license or acquire third party intellectual property rights that we may consider attractive or necessary. These established companies may have a competitive advantage over us due to their size, capital resources and greater clinical development and commercialization capabilities. In addition, companies that perceive us to be a competitor may be unwilling to assign or license rights to us. We also may be unable to license or acquire third party intellectual property rights on terms that would allow us to make an appropriate return on our investment or at all. If we are unable to enter into the necessary licenses on acceptable terms or at all, if any necessary licenses are subsequently terminated, if the licensors fail to abide by the terms of the licenses or fail to prevent infringement, misappropriation, or other violations by third parties, or if the licensed patents or other rights are found to be invalid or unenforceable, our business, financial condition and results of operations may suffer. In addition, any technology licensed or acquired by us may lose value or utility, including as a result of a change in the industry, in our business objectives, others' technology, our dispute with the licensor, and other circumstances outside our control. In return for the use of a third party's technology, we may agree to pay the licensor royalties based on sales of our products or services. Royalties are a component of the cost of products and affect the margins on our products. If we are unable to negotiate reasonable royalties or if we have to pay royalties on technology that becomes less useful for us or ceases to provide value to us, our profit margin will be reduced and we may suffer losses.

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

Filing, prosecuting and defending patents and trademarks on our Platform and products in all countries throughout the world would be prohibitively expensive, and our intellectual property rights in some territories outside the United States are less extensive than those in the United States. In some cases, we or our licensors may not be able to obtain patent or trademark protection for certain technology outside of the United States. In addition, the laws of some foreign countries and regions do not protect intellectual property rights to the same extent as the federal and state laws in the United States, and we

may encounter difficulties in protecting and defending such rights in foreign jurisdictions where we do pursue patent or trademark protection. Consequently, we may not be able to prevent third parties from practicing our inventions in all jurisdictions, or from selling or importing products made using our inventions in and into the United States or other jurisdictions. Competitors may use our inventions in jurisdictions where we have not pursued and obtained patent protection to develop their own products and may also export otherwise infringing products to territories where we have patent protection, but enforcement is not as strong as that in the United States. These products may compete with our products. Our patents or other intellectual property rights existing outside the United States may not be effective or sufficient to prevent them from competing. Similarly, intellectual property rights may be exhausted in certain situations, and others could import our products sold abroad and compete with us domestically.

Many companies have encountered significant problems in protecting and defending intellectual property rights in foreign jurisdictions. The legal systems of certain countries and regions, and particularly developing countries, do not favor the enforcement of patents, trademarks, trade secrets and other intellectual property protection, particularly those relating to biotechnology products, which could make it difficult for us to stop the infringement, misappropriation or other violations of our patents, trademarks or other intellectual property, or marketing of competing products in violation of our intellectual property rights generally in such jurisdictions. Proceedings to enforce our patent or other intellectual property rights in foreign jurisdictions could result in substantial costs and divert our efforts and attention from other aspects of our business, could put our patents or other intellectual property at risk of being invalidated or interpreted narrowly and our patent applications at risk of not issuing, and could provoke third parties to assert claims against us. We may not prevail in any lawsuits that we initiate and the damages or other remedies awarded to us, if any, may not be commercially meaningful. Accordingly, our efforts to enforce our intellectual property rights around the world may be inadequate to obtain a significant commercial advantage.

Many countries have compulsory licensing laws under which a patent owner may be compelled to grant licenses to third parties. In addition, many countries limit the enforceability of patents against government agencies or government contractors. In these countries, the patent owner may have limited remedies, which could materially diminish the value of such patent. If we or any of our licensors is forced to grant a license to third parties with respect to any patents relevant to our business, our business, financial condition and results of operations could be materially and adversely affected.

If we are unable to protect the confidentiality of our trade secrets, the value of our Platform and other technology could be materially adversely affected and our business could be harmed.

In addition to pursuing patents on our Platform and other technology, we take steps to protect our intellectual property and proprietary know-how and technology that is not patentable or that we elect not to patent, including certain of our algorithms and software. We seek to protect our trade secrets and proprietary know-how and technology by entering into agreements, including confidentiality agreements, non-disclosure agreements and intellectual property assignment agreements, with our employees, consultants, academic institutions, corporate partners and, when needed, our advisers. However, we cannot be certain that such agreements have been entered into with all relevant parties, and we cannot be certain that our trade secrets and other proprietary information will not be disclosed or that competitors or other third parties will not otherwise gain access to our trade secrets or independently develop substantially equivalent information and techniques. For example, any of these parties may breach the agreements and disclose our proprietary information, including our trade secrets, and we may not be able to obtain adequate remedies for such breaches. Such agreements may not be enforceable or may not provide meaningful protection for our trade secrets or other proprietary information in the event of unauthorized use or disclosure or other breaches of the agreements, and we may not be able to prevent such unauthorized use or disclosure. If we are required to assert our rights against such party, it could result in significant cost and distraction.

Monitoring unauthorized use or disclosure is difficult, and we do not know whether the steps we have taken to prevent such use or disclosure are, or will be, adequate. If we were to enforce a claim that a third party had illegally obtained and was using our trade secrets, it would be expensive and time-consuming, and the outcome would be unpredictable. In addition, trade secrets can be difficult to protect and some courts inside and outside the United States are less willing or unwilling to protect trade secrets.

We also seek to preserve the integrity and confidentiality of our proprietary information by maintaining physical security of our premises and physical and electronic security of our information technology systems, but it is possible that these security measures could be breached and we may not have adequate remedies for any breach. If any of our confidential proprietary information were to be lawfully obtained or independently developed by a competitor, absent patent protection, we would have no right to prevent such competitor from using that technology or information to compete with us, which could harm our competitive position.

We may be subject to claims that our employees, consultants or independent contractors have wrongfully used or disclosed confidential information of third parties or that our employees have wrongfully used or disclosed trade secrets of their former employers.

We have employed or engaged and expect to employ or engage individuals who were previously employed at or associated with universities or other companies, including our competitors or potential competitors. Although we try to ensure that our employees, consultants and independent contractors do not use the proprietary information or know-how of others in their work for us, we have in the past been, and may again in the future be, subject to claims that our employees, consultants or independent contractors have inadvertently or otherwise used or disclosed trade secrets or other proprietary information of their former employers or other third parties, or to claims that we have improperly used or obtained such trade secrets. Litigation may be necessary to defend against these claims. If we lose, in addition to paying monetary damages, we may be deprived of valuable intellectual property and face increased competition. A loss of key research personnel or work product could hamper or prevent our ability to commercialize potential products, which could harm our business. Even if we are successful in defending against these claims, litigation could result in damage to our reputation and substantial costs and be a distraction to management and affected individuals.

We may not be able to protect and enforce our trademarks and we could infringe or otherwise violate others' trademarks and if our trademarks are not adequately protected, then we may not be able to build name recognition in our markets of interest.

We have not yet registered trademarks in all of our potential markets, although we have registered Tempus and certain diagnostic test names for certain classes of goods and services in the United States. If we apply to register additional trademarks in the United States and other countries, our applications may not be allowed for registration in a timely fashion or at all, and our registered trademarks may not be maintained or enforced and our trademarks may be challenged, infringed, circumvented or declared generic or determined to be infringing on or otherwise violating another mark. For example, opposition or cancellation proceedings may be filed against our trademark applications and registrations, and our trademarks may not survive such proceedings. Such proceedings can be expensive and time-consuming, particularly for a company of our size. If we do not timely register and enforce marks used in connection with our Platform or products, we may encounter difficulty in enforcing them against third parties, and if these marks are registered by others, we could infringe or otherwise violate such trademarks.

We may not be able to protect our rights to these trademarks, which we need to build name recognition among potential partners or customers in our markets of interest. At times, competitors or other third parties may adopt trademarks similar to ours, thereby impeding our ability to build brand identity and possibly leading to market confusion. In addition, there could be potential trademark infringement or other violation claims brought by owners of other registered trademarks or trademarks that incorporate variations of our registered or unregistered trademarks. Over the long term, if we are unable to establish name recognition based on our trademarks, then we may not be able to compete effectively and our business may be adversely affected. Our efforts to enforce or protect our proprietary rights related to trademarks may be ineffective and could result in substantial costs and diversion of resources. Any of the foregoing could have a material adverse effect on our business, financial condition and results of operations.

We may be subject to claims challenging the inventorship or ownership of our owned or licensed intellectual property or claims asserting ownership of what we regard as our own intellectual property.

While it is our policy to require our employees and contractors who may be involved in the conception or development of intellectual property to execute agreements assigning such intellectual property to us, we may be unsuccessful in executing such an agreement with each party who, in fact, conceives or develops intellectual property that we regard as our own. Moreover, even when we obtain agreements assigning intellectual property to us, the assignment of intellectual property rights may not be self-executing or the assignment agreements may be breached, and we may be forced to bring claims against third parties, or defend claims that they may bring against us, to determine the ownership of what we regard as our intellectual property. Furthermore, individuals executing agreements with us may have preexisting or competing obligations to a third party, such as an academic institution, and thus an agreement with us may be ineffective in perfecting ownership of inventions developed by that individual. Disputes about the ownership of intellectual property that we may own may have a material adverse effect on our business, financial condition and results of operations. In addition, former employees may refuse to assign certain intellectual property rights to us, even though we have agreements requiring them to do so. Our ability to enforce our contractual rights may require us to seek legal action, which could be costly and time-intensive.

We or our licensors may be subject to claims that former employees, collaborators or other third parties have an interest in or right to our owned or licensed patents, trade secrets or other intellectual property. For example, we or our licensors may have inventorship disputes arise from conflicting obligations of employees, consultants or others who are involved in

developing such intellectual property. Litigation may be necessary to defend against these and other claims challenging inventorship or ownership of our owned or licensed patents, trade secrets or other intellectual property. If we or our licensors fail in defending against any such claims, in addition to paying monetary damages, we may lose exclusive ownership of, or right to use, valuable intellectual property. An inability to incorporate such technologies or features would harm our business and may prevent us from successfully commercializing our products or at all. In addition, we may lose personnel as a result of such claims and any such litigation or the threat thereof may adversely affect our ability to hire employees or contract with independent contractors. A loss of key personnel or their work product could hamper or prevent our ability to commercialize our products. Even if we are successful in defending against such claims, litigation could result in damage to our reputation and substantial costs and be a distraction to management and other employees. Any of the foregoing could have a material adverse effect on our business, financial condition and results of operations.

We are and may in the future become involved in litigation and other legal proceedings alleging that we are infringing, misappropriating or otherwise violating third-party intellectual property rights, or asserting our intellectual property rights, which could be time-intensive and costly and may adversely affect our business, financial condition and results of operations.

We are and may become involved with litigation or USPTO actions with various third parties. For example, on June 11, 2024, Guardant filed a complaint for patent infringement against us alleging that the Tempus xF, Tempus xF+, Tempus xM Monitor and Tempus xM MRD products use liquid biopsy technology that infringes five Guardant U.S. patents. The complaint seeks injunctive relief, unspecified monetary damages (including enhanced damages), a future mandatory royalty, costs and attorneys' fees. We expect that the number of such types of claims may increase as the number of our products grows, and the level of competition in our industry segments increases. Given the vast number of patents in our field of technology, we cannot be certain or guarantee that we do not infringe existing patents or that we will not infringe patents that may be granted in the future. Many companies and institutions have filed, and continue to file, patent applications related to the development and commercialization of genomic and algorithmic diagnostic tests. Some of these patent applications have already been allowed or issued and others may issue in the future. Since this area is competitive and of strong interest to biotechnology companies, there will likely be additional patent applications filed and additional patents granted in the future, as well as additional research and development programs expected in the future. If a patent holder believes the manufacture, use, sale or importation of our products infringe its patent, the patent holder may sue us even if we own or have licensed other patent protection for our technology. The biotechnology industry is characterized by extensive and complex litigation regarding patents and other intellectual property rights. Moreover, we face and expect to continue to face allegations of patent infringement, and we may face claims regarding such allegations, from nonpracticing entities that have no relevant product revenue and against whom our owned or licensed patent portfolio may therefore have no deterrent effect. Any infringement claim, regardless of its validity, could harm our business by, among other things, resulting in time-consuming and costly litigation, diverting management's time and attention from the development of our business, or requiring the payment of monetary damages (including treble damages, attorneys' fees, costs and expenses if we are found to have willfully infringed) and ongoing royalties.

Litigation may be necessary for us to enforce our intellectual property and proprietary rights or to determine the scope, coverage and validity of the intellectual property and proprietary rights of others. The outcome of such lawsuits, as well as any other litigation or proceeding, is inherently uncertain and might not be favorable to us. Further, we could encounter delays in product introductions, or interruptions in the sale of products, as we develop alternative products. In addition, if we resort to legal proceedings to enforce our intellectual property rights or to determine the validity, scope and coverage of the intellectual property or other proprietary rights of others, the proceedings could be burdensome and expensive, even if we were to prevail. If we do not prevail in such legal proceedings, we may be required to pay damages, and we may lose significant intellectual property protection for our products, such that competitors could copy our products. Any litigation that may be necessary in the future could result in substantial costs and diversion of resources and could have a material adverse effect on our business, financial condition and results of operations.

As we move into new markets and applications for our Platform or products, incumbent participants in such markets may assert their patents and other intellectual property or proprietary rights against us as a means of slowing our entry into such markets or as a means to extract substantial license and royalty payments from us. As our business matures and our public profile grows, we may also be subject to an increased number of allegations of patent infringement, whether by our competitors or other patent owners, both in the United States and throughout the world wherever we seek to commercialize our products. Our competitors and others may have significantly larger and more mature patent portfolios than we have. In addition, while we can assert our own patents or other rights during litigation, our own patents may provide little or no deterrence or protection against patent holding companies or other patent owners who have no relevant product or service revenue. Therefore, our commercial success may depend in part on our non-infringement of the patents or other rights of third parties and on our success in defending ourselves in litigation.

However, our research, development and commercialization activities may be subject to claims that we infringe or otherwise violate patents or other intellectual property rights owned or controlled by third parties. There is a substantial amount of litigation and other patent challenges, both within and outside the United States, involving patent and other intellectual property rights in the biotechnology industry, including patent infringement lawsuits, interferences, oppositions and *inter partes* review proceedings before the USPTO, and corresponding proceedings before foreign patent offices. Numerous U.S. and foreign issued patents and pending patent applications, which are owned by third parties, exist in the fields in which we are developing products. As the intelligent medicine and healthcare data analytics industries expand and more patents are issued, the risk increases that our Platform or products may be subject to claims of infringement of the patent rights of third parties. Numerous significant intellectual property issues have been litigated, are being litigated and will likely continue to be litigated, between existing and new participants in our existing and targeted markets, and our competitors have asserted and may in the future assert that our Platform or products infringe, misappropriate or otherwise violate their intellectual property rights as part of a business strategy to impede our successful entry into or growth in those markets, and we may enforce our owned or licensed intellectual property rights against our competitors and other parties.

Third parties may assert that we are employing their patents, proprietary technology or trade secrets without authorization. By interacting with us, our licensors may learn more about our business or technology and could assert additional patent rights against us, such as patent rights that are not currently licensed to us or patent rights that may be obtained by any such licensors in the future, which may occur if such patent rights are not available for licensing or if they are not offered on acceptable or commercially reasonable terms. Because patent applications can take many years to issue and are not publicly available until a certain period of time passes from filing, there may be currently pending patent applications which may later result in issued patents that our current or future products and services may infringe. In addition, similar to what other companies in our industry have experienced, we expect our competitors and others may develop or obtain patents with our Platform or products in mind and claim that making, having made, using, selling, offering to sell or importing our products infringes these patents.

Patent and other types of intellectual property litigation can involve complex factual and legal questions, and their outcome is uncertain. Even if we believe such claims are without merit, a court of competent jurisdiction could hold that these third-party patents are valid, enforceable and infringed, which could adversely affect our ability to commercialize our technology. In order to successfully challenge the validity of any such U.S. patent in federal court, we would need to overcome a presumption of validity. As this burden is a high one requiring us to present clear and convincing evidence as to the invalidity of any such U.S. patent claim, there can be no assurance that a court of competent jurisdiction would invalidate the claims of any such U.S. patent or find that our technology did not infringe any such claims. Further, even if we were successful in defending against any such claims, such claims could require us to incur substantial costs and divert financial resources and the attention of our management and technical personnel in defending against any of these claims. Parties making claims against us may be able to sustain the costs of complex patent litigation more effectively than we can, for example, because they have substantially greater resources.

If any third-party patent were to be asserted against us, there can be no assurance that any defenses will be successful. If our defenses to such assertion were unsuccessful, the third-party making claims against us may be able to obtain injunctive or other relief, including by court order, which could block our ability to develop, commercialize and sell certain products, and could result in the award of substantial damages against us, including treble damages, attorney's fees, costs and expenses if we are found to have willfully infringed. In the event of a successful claim of infringement against us, we may be required to pay damages and ongoing royalties, and obtain one or more licenses from third parties, or be prohibited from selling certain products. Further, we may be required to redesign our technology in a non-infringing manner which may not be commercially feasible. We could also be required or may choose to obtain a license from such third party to continue developing, manufacturing and marketing our technology. However, we may not be able to obtain these licenses on acceptable or commercially reasonable terms, if at all, or these licenses may be non-exclusive, which could result in our competitors gaining access to the same intellectual property. In addition, we could encounter delays in product introductions while we attempt to develop alternative products to avoid infringing third-party patents or otherwise violating proprietary rights. Defense of any lawsuit or failure to obtain any of these licenses could prevent us from commercializing products, and the prohibition of sale of any of our products could materially affect our business and our ability to gain market acceptance for our products. Any of the foregoing could have a material adverse effect on our business, financial condition and results of operations.

Even if resolved in our favor, litigation or other legal proceedings relating to intellectual property claims may cause us to incur significant expenses and could distract our scientific and management personnel from their normal responsibilities. Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation. In addition, during the course of this kind of litigation, there could be public announcements of the results of hearings, motions

or other interim proceedings or developments. 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 operating losses and reduce the resources available for development activities or any future sales, marketing or distribution activities.

In addition, our agreements with some of our customers, suppliers or other entities with whom we do business require us to defend or indemnify these parties to the extent they become involved in infringement claims, including the types of claims described above. We could also voluntarily agree to defend or indemnify third parties in instances where we are not obligated to do so if we determine it would be important to our business relationships. If we are required or agree to defend or indemnify third parties in connection with any infringement claims, we could incur significant costs and expenses that could adversely affect our business, financial condition and results of operations.

Obtaining and maintaining our patent and trademark protection depends on compliance with various required procedures, document submissions, fee payments and other requirements imposed by governmental patent agencies, and our patent protection could be reduced or eliminated for non-compliance with these requirements.

Periodic maintenance fees, renewal fees, annuity fees and various other governmental fees on patents and/or applications and trademarks and trademark applications will be due to be paid to the USPTO and various governmental patent agencies outside of the United States at several stages over the lifetime of the patents and/or applications and trademarks and trademark applications. We have systems in place to remind us to pay these fees, and we rely on our outside counsel to pay these fees due to U.S. and non-U.S. patent and trademark agencies. The USPTO and various foreign governmental patent and trademark agencies require compliance with a number of procedural, documentary, fee payment and other similar requirements during the patent and trademark application processes. In many cases, an inadvertent lapse can be cured by payment of a late fee or by other means in accordance with the applicable rules. However, there are situations in which non-compliance can result in abandonment or forfeiture of the patent or patent application or trademark or trademark application and thus the partial or complete loss of patent or trademark rights in the relevant jurisdiction. Such an event would allow our competitors to enter the unprotected market and have a material adverse effect on our business, financial condition and results of operations.

Patent terms may be inadequate to protect our competitive position for an adequate amount of time.

Patents have a limited lifespan. In the United States, if all maintenance fees are timely paid, the natural expiration of a patent is generally 20 years from its earliest U.S. non-provisional filing date. Various extensions may be available, but the life of a patent, and the protection it affords, is limited. Even if patents covering our Platform or products are obtained, once the patent life has expired, we may be open to competition. Given the amount of time required for the development, testing and regulatory review of our new products, patents protecting them might expire before or shortly after they are commercialized. As a result, our owned and licensed patent portfolio may not provide us with a sufficient exclusivity period to exclude others from commercializing products similar or identical to ours.

Intellectual property rights do not necessarily address all potential threats.

The degree of future protection afforded by our intellectual property rights is uncertain because intellectual property rights have limitations, and may not adequately protect our business or permit us to maintain our competitive advantage. For example:

- others may be able to make products that are similar to ours, but that are not covered by the claims of the patents that we license or may own in the future;
- we, or our license partners or future collaborators, might not have been the first to make the inventions covered by the issued patent or pending patent applications that we license or may own in the future;
- we, or our license partners or future collaborators, might not have been the first to file patent applications covering certain of our or their inventions;
- others may independently develop similar or alternative technologies or duplicate any of our technologies without infringing our owned or licensed intellectual property rights;
- it is possible that our pending licensed patent applications or those that we may own in the future will not lead to issued patents;

- issued patents that we hold rights to now or in the future may be held invalid or unenforceable, including as a result of legal challenges by our competitors;
- others may have access to the same intellectual property rights licensed to us in the future on a nonexclusive basis;
- our competitors might conduct research and development activities in countries where we do not have patent rights and then use the information learned from such activities to develop competitive products for sale in our major commercial markets;
- we may not develop additional proprietary technologies that are patentable;
- the patents or other intellectual property rights of others may have an adverse effect on our business; or
- we may choose not to file a patent for certain trade secrets or know-how, and a third party may subsequently file a patent covering such intellectual property.

Any of the foregoing could have a material adverse effect on our business, financial condition and results of operations.

Our products contain third-party open source software components and failure to comply with the terms of the underlying open source software licenses could restrict our ability to sell our products or may require us to publicly disclose our proprietary software.

Our products contain software tools licensed by third parties under open source software licenses. Use and distribution of open source software may entail greater risks than use of third-party commercial software, as open source software licensors generally do not provide warranties or other contractual protections regarding infringement or other violation claims or the quality of the code. Some open source software licenses contain requirements that the licensee make its source code publicly available if the licensee creates modifications or derivative works using the open source software or provide software services at no cost to the user, depending on the type of open source software the licensee uses and how the licensee uses it. If we combine our proprietary software with open source software in a certain manner, we could, under certain open source software licenses, be required to release the source code of our proprietary software to the public for free. This would allow our competitors to create similar products with less development effort and time and ultimately could result in a loss of product sales and revenue. In addition, some companies that use third-party open source software have faced claims challenging their use of such open source software, seeking enforcement of open source license provisions, asserting ownership of open source software incorporated in products and demanding compliance with the terms of the applicable open source license. We may be subject to suits by third parties claiming ownership of what we believe to be open source software, or claiming non-compliance with the applicable open source licensing terms. Use of open source software may also present additional security risks because the public availability of such software may make it easier for hackers and other third parties to compromise or attempt to compromise our Platform and systems. If an author or other third party that distributes such open source software were to allege that we had not complied with the conditions of an open source license, we could incur significant legal costs defending ourselves against such allegations. In the event such claims were successful, we could be subject to significant damages or be enjoined from the distribution of our products.

There is little legal precedent and the terms of many open source software licenses have not been interpreted by United States courts, and there is a risk that these licenses could be construed in a way that could impose unanticipated conditions or restrictions on our ability to commercialize our products. Moreover, we cannot assure investors that our processes for monitoring and controlling our use of open source software in our products will be effective. If we are held to have breached the terms of an open source software license, we could be required to seek licenses from third parties to continue offering our products on terms that are not economically feasible, to re-engineer our product, to discontinue the sale of our products if re-engineering could not be accomplished on a timely basis, or to make generally available, in source code form, our proprietary code, any of which could adversely affect our business, financial condition and results of operations.

In addition, to the extent we use open source technologies or licensed third-party technologies in our AI Applications product line, those products may be subject to similar concerns or even unanticipated or unknown risks given the nascency of the industry and the types of products we intend to develop and deploy. For example, developers of open source technologies and third-party licensors may not adhere to the same or similar standards that we adhere to in the development, validation, training and maintenance of AI models. To the extent such third parties' standards fall below a certain level and go undetected during our diligence and evaluation of such technologies, our business could suffer unintended consequences, including a detrimental impact on the patients we serve or the introduction of malware or other information security vulnerabilities into our network architecture.

The legislative, judicial and regulatory landscapes relating to AI are evolving and may impact our ability to use AI, and could limit our ability to operate and expand our business, cause revenue to decline and adversely affect our business.

Uncertainty in the legal regulatory regime relating to AI may require significant resources to modify and maintain business practices to comply with U.S. and non-U.S. laws, the nature of which cannot be determined at this time. Several jurisdictions around the globe, including Europe and certain U.S. states, have already proposed or enacted laws governing AI. For example, on May 17, 2024, Colorado became the first state in the United States to pass a law that requires developers of high-risk AI systems to avoid algorithmic discrimination involving certain AI decisions and to extensively document how the high-risk AI system was evaluated for performance and mitigation of algorithmic discrimination. The law also requires documentation of data governance measures used with the training data sets, the intended outputs of the high-risk AI system, how the AI system should and should not be used, and other aspects of the system. The law could require us to significantly alter our use of AI or how we train our algorithms, which could lead to increased costs. The law does not go into effect until February 1, 2026.

Further, on July 12, 2024, the AI Act was published in the Official Journal of the European Union and will follow a phased implementation process with the bulk of its requirements becoming applicable from August 2, 2026 (including the core of the requirements relevant to the “high-risk” systems referred to below). The AI Act will establish, among other things, a risk-based governance framework for regulating AI systems in the EU. This framework would categorize AI systems, based largely on the risks associated with such AI systems’ intended purposes or their capabilities, for example, prohibiting certain “unacceptable” AI practices, classifying certain AI systems as “high-risk” systems that must meet stringent compliance requirements (including various transparency, conformity and risk assessment, monitoring, and human oversight requirements), introducing specific compliance obligations for certain “general-purpose AI systems” (more commonly known as foundation models) with all other AI systems being considered either limited risk (requiring primarily adherence to certain transparency requirements) or low risk. There is a risk that our use of AI may obligate us to comply with the applicable requirements of the AI Act, which may impose additional costs on us, increase our risk of liability or adversely affect our business.

Other jurisdictions may decide to adopt similar or more restrictive legislation that may render the use of such technologies challenging. We may not be able to adequately anticipate or respond to these evolving laws and regulations, and we may need to expend additional resources to adjust our offerings in certain jurisdictions if applicable legal frameworks are inconsistent across jurisdictions.

Risks Related to Ownership of Our Class A Common Stock

The dual class structure of our common stock will have the effect of concentrating voting control with our Chief Executive Officer, Founder and Chairman, which will limit your ability to influence the outcome of important decisions.

Our Class B common stock has 30 votes per share and our Class A common stock, has one vote per share. As of February 21, 2025, our Chief Executive Officer, Founder, and Chairman, Eric Lefkofsky, who, collectively with his controlled entities, holds all our outstanding shares of Class B common stock, beneficially owned shares representing approximately 62.4% of the voting power of our outstanding capital stock. As a result, Mr. Lefkofsky has the ability to control the outcome of matters requiring stockholder approval, including the election of directors and approval of significant corporate transactions, such as a merger, other sale of our company or our assets or significant acquisitions, even if his stock ownership represents less than 50% of the outstanding aggregate number of shares of our capital stock. This concentration of voting control limits the ability of other stockholders to influence corporate matters and may cause us to make strategic decisions that could involve risks to you or that may not be aligned with your interests. In addition, Mr. Lefkofsky serves as an observer on our nominating and corporate governance committee, and accordingly, may have substantial influence over the individuals nominated to serve as directors. As a board member, Mr. Lefkofsky owes a fiduciary duty to our stockholders and is legally obligated to act in good faith and in a manner he reasonably believes to be in the best interests of our stockholders. As a stockholder, Mr. Lefkofsky is entitled to vote his shares in his own interests, which may not always be in the interests of our stockholders generally. Mr. Lefkofsky’s control may adversely affect the market price of our Class A common stock.

We have not elected to take advantage of the “controlled company” exemption to the corporate governance rules for publicly listed companies but may do so in the future.

Because our Chief Executive Officer, Founder, and Chairman, Eric Lefkofsky, who, collectively with his controlled entities, holds all our outstanding shares of Class B common stock, beneficially owns shares representing in excess of 50% of the voting power of our outstanding capital stock, we are eligible to elect the “controlled company” exemption to the

corporate governance rules for publicly listed companies. We have not elected to do so. If we decide to become a “controlled company” under the corporate governance rules for publicly listed companies, we would not be required to have a majority of our board of directors be independent, nor would we be required to have a compensation committee or an independent nominating function. If we choose controlled company status in the future, our status as a controlled company could cause our Class A common stock to be less attractive to certain investors or otherwise harm our trading price.

We cannot predict the impact our dual class structure may have on the market price of our Class A common stock.

We cannot predict whether our dual class structure, combined with the concentrated control of our Chief Executive Officer, Founder and Chairman, who beneficially owns all of the outstanding shares of our Class B common stock, will result in a lower or more volatile market price of our Class A common stock or in adverse publicity or other adverse consequences. Certain index providers have announced restrictions on including companies with multiple-class share structures in certain of their indexes. For example, in July 2017, FTSE Russell and Standard & Poor’s announced that they would cease to allow most newly public companies utilizing dual or multi-class capital structures to be included in their indices. Under the announced policies, our dual class capital structure would make us ineligible for inclusion in any of these indices. Given the sustained flow of investment funds into passive strategies that seek to track certain indexes, exclusion from stock indexes would likely preclude investment by many of these funds and could make our Class A common stock less attractive to other investors. As a result, the market price of our Class A common stock could be adversely affected.

An active public trading market for our Class A common stock may not continue to develop or be sustained.

Prior to the IPO, there was no public market for our Class A common stock. An active public trading market for our Class A common stock may not continue to develop or be sustained. The lack of an active market may impair your ability to sell your shares at the time you wish to sell them or at a price that you consider reasonable. The lack of an active market may also reduce the fair value of your shares. An inactive market may also impair our ability to raise capital to continue to fund operations by selling shares and may impair our ability to acquire other companies or technologies by using our shares as consideration.

Future sales of our Class A common stock in the public market could cause the market price of our Class A common stock to decline.

Sales of a substantial number of shares of our Class A common stock in the public market, or the perception that these sales might occur, could depress the market price of our Class A common stock and could impair our ability to raise capital through the sale of additional equity securities. Many of our existing equity holders have substantial unrecognized gains on the value of the equity they hold based upon the price of our IPO, and therefore they may take steps to sell their shares or otherwise secure the unrecognized gains on those shares. All of the Class A common stock sold in our IPO is freely tradable without restrictions or further registration under the Securities Act, except for any shares held by our affiliates as defined in Rule 144 under the Securities Act, or Rule 144. In addition, the lockup and market standoff agreements entered into in connection with our IPO expired on December 10, 2024. We are unable to predict the timing of or the effect that such sales may have on the prevailing market price of our Class A common stock.

Sales, short sales, or hedging transactions involving our equity securities, whether or not we believe them to be prohibited, could adversely affect the price of our Class A common stock.

We do not intend to pay dividends for the foreseeable future and, as a result, your ability to achieve a return on your investment will depend on appreciation in the price of our Class A common stock.

While we have in the past paid dividends to holders of our convertible preferred stock, we do not intend to pay any cash dividends in the foreseeable future. Any determination to pay dividends in the future will be at the discretion of our board of directors. Accordingly, you may need to rely on sales of our Class A common stock after price appreciation, which may never occur, as the only way to realize any future gains on your investment.

We are an “emerging growth company,” and we cannot be certain if the reduced reporting and disclosure requirements applicable to emerging growth companies will make our Class A common stock less attractive to investors.

We are an “emerging growth company,” as defined in the JOBS Act, and we may take advantage of certain exemptions from various reporting requirements that are applicable to other public companies that are not “emerging growth companies,” including the auditor attestation requirements of Section 404, reduced disclosure obligations regarding executive

compensation in our periodic reports and proxy statements and exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved. Pursuant to Section 107 of the JOBS Act, as an emerging growth company, we have elected to use the extended transition period for complying with new or revised accounting standards until those standards would otherwise apply to private companies. As a result, our condensed consolidated financial statements may not be comparable to the financial statements of issuers who are required to comply with the effective dates for new or revised accounting standards that are applicable to public companies, which may make our Class A common stock less attractive to investors. In addition, if we cease to be an emerging growth company, we will no longer be able to use the extended transition period for complying with new or revised accounting standards.

We will remain an emerging growth company until the earliest of: (1) the last day of the fiscal year following the fifth anniversary of our IPO; (2) the last day of the first fiscal year in which our annual gross revenue is \$1.235 billion or more; (3) the date on which we have, during the previous rolling three-year period, issued more than \$1.0 billion in non-convertible debt securities; and (4) the last day of the fiscal year in which the market value of our Class A common stock held by non-affiliates exceeded \$700 million as of June 30 of such fiscal year.

We cannot predict if investors will find our Class A common stock less attractive if we choose to rely on these exemptions. If some investors find our Class A common stock less attractive, there may be a less active trading market for our Class A common stock and our stock price may be more volatile.

Anti-takeover provisions in our charter documents and under Delaware law could make an acquisition of our company more difficult, limit attempts by our stockholders to replace or remove our current management and limit the market price of our Class A common stock.

In addition to the effects of our dual class structure, provisions in our amended and restated certificate of incorporation and amended and restated bylaws, as they are in effect as of the completion of our IPO, may have the effect of delaying or preventing a change in control or changes in our management. Our amended and restated certificate of incorporation and amended and restated bylaws will include provisions that may 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 of directors, which is responsible for appointing the members of our management.

In addition, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law, which generally, subject to certain exceptions, prohibits a Delaware corporation from engaging in any of a broad range of business combinations with any “interested” stockholder for a period of three years following the date on which the stockholder became an “interested” stockholder. Any of the foregoing provisions could limit the price that investors might be willing to pay in the future for shares of our Class A common stock, and they could deter potential acquirers of our company, thereby reducing the likelihood that you would receive a premium for your shares of our Class A common stock in an acquisition.

Our amended and restated certificate of incorporation provides that the Court of Chancery of the State of Delaware and the federal district courts of the United States of America are the exclusive forums 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 directors, officers, or employees.

Our amended and restated certificate of incorporation provides that the Court of Chancery of the State of Delaware is the exclusive forum for the following types of actions or proceedings under Delaware statutory or common law:

- any derivative claim or cause of action brought on our behalf;
- any claim or cause of action asserting a breach of fiduciary duty;
- any claim or cause of action against us arising under the Delaware General Corporation Law;
- any claim or cause of action arising under or seeking to interpret our amended and restated certificate of incorporation or our amended and restated bylaws; and
- any claim or cause of action against us that is governed by the internal affairs doctrine.

The provisions would not apply to suits brought to enforce a duty or liability created by the Securities Exchange Act of 1934, or the Exchange Act. Furthermore, Section 22 of the Securities Act creates concurrent jurisdiction for federal and state courts over all such Securities Act actions. Accordingly, both state and federal courts have jurisdiction to entertain such

claims. To prevent having to litigate claims in multiple jurisdictions and the threat of inconsistent or contrary rulings by different courts, among other considerations, our amended and restated certificate of incorporation will further provide that the federal district courts of the United States of America will be the exclusive forum for resolving any complaint asserting a cause or causes of action arising under the Securities Act, including all causes of action asserted against any defendant to such complaint. For the avoidance of doubt, this provision is intended to benefit and may be enforced by us, our officers and directors, the underwriters to any offering giving rise to such complaint, and any other professional entity whose profession gives authority to a statement made by that person or entity and who has prepared or certified any part of the documents underlying the offering.

While the Delaware courts have determined that such choice of forum provisions are facially valid, a stockholder may nevertheless seek to bring a claim in a venue other than those designated in the exclusive forum provisions. In such an instance, we would expect to vigorously assert the validity and enforceability of the exclusive forum provisions of our amended and restated certificate of incorporation. This may require significant additional costs associated with resolving such action in other jurisdictions and there can be no assurance that the provisions will be enforced by a court in those other jurisdictions.

These exclusive 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 our directors, officers, or other employees, which may discourage lawsuits against us and our directors, officers, and other employees. If a court were to find either exclusive-forum provision in our amended and restated certificate of incorporation to be inapplicable or unenforceable in an action, we may incur further significant additional costs associated with resolving the dispute in other jurisdictions, all of which could seriously harm our business, financial condition and results of operations.

Our stock price may be volatile, and the value of our Class A common stock may decline.

The market price of our Class A common stock has been highly volatile, ranging from \$22.89 to \$91.45 per share since our IPO. The price of our Class A common stock may fluctuate or decline substantially as a result of a variety of factors, some of which are beyond our control, including:

- actual or anticipated fluctuations in our financial condition or results of operations;
- variance in our financial performance from expectations of securities analysts;
- changes in the pricing of our products;
- our ability to service or pay down existing or future debt obligations;
- changes in our projected operating and financial results;
- changes in laws or regulations applicable to our Platform and products, including changes in the regulation of data or in the structure of healthcare payment systems;
- announcements by us or our competitors of significant business developments, acquisitions, or new products;
- significant data breaches, disruptions to or other incidents involving our products;
- our involvement in litigation or governmental investigations;
- future sales of our Class A common stock by us or our stockholders;
- changes in senior management or key personnel;
- the issuance of new or changed securities analysts' reports or recommendations;
- the trading volume of our Class A common stock;
- changes in the anticipated future size and growth rate of our market; and
- economic and market conditions in general, or in our industry in particular.

Broad market and industry fluctuations, as well as general economic, political, regulatory, and market conditions, may also negatively impact the market price of our Class A common stock. In addition, technology stocks have historically experienced high levels of volatility. In the past, companies that have experienced volatility in the market price of their securities have been subject to securities class action litigation. We may be the target of this type of litigation in the future, which could result in substantial expenses and divert our management's attention.

If securities or industry analysts do not publish research or publish unfavorable or inaccurate research about our business, the market price and trading volume of our Class A common stock could decline.

The market price and trading volume of our Class A common stock following the completion of our IPO is heavily influenced by the way analysts interpret our financial information and other disclosures. We do not have control over these analysts. If few securities analysts commence coverage of us, or if industry analysts cease coverage of us, our stock price would be negatively affected. If securities or industry analysts do not publish research or reports about our business, downgrade our Class A common stock, or publish negative reports about our business, our stock price would likely decline. If one or more of these analysts cease coverage of us or fail to publish reports on us regularly, demand for our Class A common stock could decrease, which might cause our stock price to decline and could decrease the trading volume of our Class A common stock.

We will incur increased costs as a result of operating as a public company, and our management will be required to devote substantial time to compliance with our public company responsibilities and corporate governance practices.

As a public company, we will incur significant legal, accounting and other expenses that we did not incur as a private company, which we expect to further increase after we are no longer an “emerging growth company.” The Sarbanes-Oxley Act, the Dodd-Frank Wall Street Reform and Consumer Protection Act, the Exchange Act, the listing requirements of the Nasdaq Stock Market and other applicable securities rules and regulations impose various requirements on public companies. Our management and other personnel devote a substantial amount of time to compliance with these requirements. Moreover, these rules and regulations will increase our legal and financial compliance costs and will make some activities more time-consuming and costly, such as maintaining directors’ and officers’ liability insurance. We cannot predict or estimate the amount of additional costs we will incur as a public company or the specific timing of such costs, and any such costs may adversely affect our business, financial condition and results of operations.

General Risk Factors

Our business could be adversely affected by the effects of health pandemics or epidemics.

Our business could be adversely affected by the effects of health pandemics or epidemics. For example, the COVID-19 global pandemic and the various attempts throughout the world to contain it created significant volatility, uncertainty and disruption.

We experienced significant reduction in access to our customers, including restrictions on our ability to market and distribute our tests and to collect samples. Our partners, vendors and customers similarly had their operations altered or temporarily suspended. Due to impacts and measures resulting from the COVID-19 pandemic, we experienced and could again experience unpredictable reductions in the demand for our tests as healthcare customers divert medical resources and priorities toward the treatment of the virus. Our historic results such as revenue, operating margins, cash flows, tests performed, and other financial and operating metrics, may not be indicative of our results for future periods.

We cannot assure you that these effects will remain reduced in the future, including due to potential new public health outbreaks. To the extent future public health outbreaks adversely affect our business and financial results, they may also have the effect of heightening many of the other risks described in this “Risk Factors” section.

We have and may in the future acquire businesses, form joint ventures or make investments in companies or technologies that could negatively affect our operating results, distract management’s attention from other business concerns, dilute our stockholders’ ownership, and significantly increase our debt, costs, expenses, liabilities and risks.

We have made acquisitions of businesses, technologies and assets and may pursue additional acquisitions in the future, one or more of which may be substantial. We also may pursue strategic alliances and additional joint ventures that leverage our Platform and industry experience to expand our product offerings or distribution. We have limited experience with acquisitions, joint ventures and forming strategic partnerships. We compete for those opportunities with others including our competitors, some of which have greater financial or operational resources than we do. We may not be able to identify suitable acquisition candidates or strategic partners, we may have inadequate access to information or insufficient time to complete due diligence, and we may not be able to complete such transactions on favorable terms, if at all. If we make any acquisitions, we may not be able to integrate these acquisitions successfully into our existing business, and we could assume unknown or contingent liabilities. Difficulties in assimilating acquired businesses include redeployment or loss of key employees and their severance, combination of teams and processes in various functional areas, reorganization or closures of

facilities, relocation or disposition of excess equipment, and increased litigation, regulatory and compliance risks, any of which could be expensive and time consuming and adversely affect us. Integration of an acquired business also may disrupt our ongoing operations and require management resources that we would otherwise focus on developing our existing business. In addition, any acquisition could result in the incurrence of debt, contingent liabilities or future write-offs of intangible assets or goodwill, any of which could have a material adverse effect on our financial condition, results of operations and cash flows.

We may also experience losses related to investments in other companies, which could have a material negative effect on our business, financial condition and results of operations. We may not realize the anticipated benefits of any acquisition, technology license, strategic alliance or joint venture.

We evaluate opportunities for transactions of these types from time to time. For example, on May 18, 2024, we entered into the Joint Venture Agreement, or the Joint Venture Agreement, with SoftBank Group Corporation, or SoftBank, to form SB Tempus Corp., the Joint Venture or SB Tempus. The Joint Venture closed on July 18, 2024, at which time we and SoftBank each contributed ¥15 billion (\$95.2 million). Each party received 50% of SB Tempus' outstanding capital stock and board seats. SB Tempus will engage in certain business activities in Japan similar to those conducted by us in the United States, including performing clinical sequencing, organizing patient data, and building a real world data business in Japan. We have limited experience forming joint ventures and we may not realize the anticipated benefits of the Joint Venture. We may also realize losses related to our investment in the Joint Venture, which could have a material negative effect on our business, financial condition and results of operations.

In addition, to finance any acquisitions, joint ventures or investments, we may choose to issue shares of our common stock as consideration, which would dilute the ownership of our stockholders. For example, on November 4, 2024 we entered into a Securities Purchase Agreement, or the Purchase Agreement, with REALM IDx, Inc., a Delaware corporation, or the Seller, and the Seller's ultimate parent, Konica Minolta, Inc., a Japanese corporation, as guarantor, pursuant to which we agreed to purchase all of the outstanding shares of capital stock of Ambry. Such transaction is hereinafter referred to as the Acquisition. Pursuant to the terms of the Purchase Agreement, consideration for the Acquisition consisted of \$375.0 million in cash, subject to adjustment for cash, unpaid indebtedness, unpaid transaction expenses and net working capital of Ambry, or Cash Consideration, plus an aggregate of 4,483,136 shares of our Class A common stock, or the Stock Consideration, all of which shares were issued by us to the Seller on February 3, 2025, upon the closing of the Acquisition, and 2,152,505 of which shares are subject to a lock-up for a period of one year following the closing date of the Acquisition. In connection with the Acquisition, we entered into an amendment to the Credit Agreement providing for the Additional Term Loan Facility and the Revolving Credit Facility. We utilized borrowings under the Additional Term Loan Facility and the Revolving Credit Facility to fund the Cash Consideration for the Acquisition and to pay fees and expenses related thereto. For future acquisitions, joint ventures or investments, there can be no assurance that additional funds will be available on terms that are favorable to us, or at all. If the price of our common stock is low or volatile, we may not be able to acquire other companies or fund a joint venture project using our stock as consideration.

Our ability to use our net operating loss carryforwards and certain other tax attributes may be limited.

We have incurred net losses since our inception and we may never achieve or sustain profitability. Generally, losses incurred will carry forward until such losses expire (for losses generated prior to January 1, 2018) or are used to offset future taxable income, if any. Under current law, U.S. federal net operating losses, or NOLs, incurred in taxable years beginning after December 31, 2017, can be carried forward indefinitely to offset future taxable income, but the deductibility of such U.S. federal NOL carryforwards in a taxable year is limited to 80% of taxable income in such year. Under Sections 382 and 383 of the Internal Revenue Code of 1986, as amended, or the IRC, if a corporation undergoes an "ownership change," generally defined as a greater than 50 percentage point change (by value) in its equity ownership by certain stockholders over a three-year period, the corporation's ability to use its pre-change net operating loss, carryforwards and other pre-change tax attributes (such as research tax credits) to offset its post-change income or taxes may be limited. We have not completed a study to assess whether one or more ownership change for purposes of Section 382 or 383 have occurred since our inception. For purposes of Section 382 or 383, we may have experienced ownership changes in the past and may experience ownership changes in the future as a result of shifts in our stock ownership (some of which shifts are outside our control). As a result, if we earn net taxable income, our ability to use our pre-change NOL carryforwards to offset such taxable income will be subject to limitations. Similar provisions of state tax law may also apply to limit our use of accumulated state tax attributes. Therefore, if we attain profitability, we may be unable to use a material portion of our NOL carryforwards and other tax attributes, which could adversely affect our future cash flows. These changes may adversely affect our future cash flow.

Taxing authorities may successfully assert that we should have collected or in the future should collect sales and use, value added, or similar taxes, and we could be subject to tax liabilities with respect to past or future sales, which could adversely affect our results of operations.

We do not collect sales and use, value added, and similar taxes in all jurisdictions in which we have sales, based on our belief that such taxes are not applicable or that we are not required to collect such taxes with respect to the jurisdiction. Sales and use, value added, and similar tax laws and rates vary greatly by jurisdiction. Certain jurisdictions in which we do not collect such taxes may assert that such taxes are applicable, which could result in tax assessments, penalties, and interest, and we may be required to collect such taxes in the future. Such tax assessments, penalties, and interest or future requirements may adversely affect our results of operations.

If our estimates or judgments relating to our critical accounting policies are based on assumptions that change or prove to be incorrect, our operating results could fall below our publicly announced guidance or the expectations of securities analysts and investors, resulting in a decline in the market price of our common stock.

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America, or GAAP, requires management to make estimates and assumptions that affect the amounts reported in our financial statements and accompanying notes. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets, liabilities, equity, revenue and expenses that are not readily apparent from other sources. Actual results could therefore differ materially from these estimates under different assumptions or conditions. It is possible that interpretation, industry practice and guidance may evolve as we work toward implementing these new accounting standards. If our assumptions change or if actual circumstances differ from our assumptions, our operating results may be adversely affected and could fall below our publicly announced guidance or the expectations of analysts and investors, resulting in a decline in the market price of our common stock.

We are highly dependent on the services of Eric Lefkofsky and other members of our senior management team and the loss of any member of our senior management team or our inability to attract and retain highly skilled scientists, clinicians, sales representatives and business development managers could adversely affect our business, financial condition and results of operations.

Our success depends on the skills, experience and performance of key members of our senior management team. In particular, we are highly dependent on the services of Eric Lefkofsky, our Founder, Chief Executive Officer, and Chairman of our board of directors. Mr. Lefkofsky spends substantially all of his professional time with us, and he is highly active in our management; however, he does devote some of his time and attention to other endeavors. Mr. Lefkofsky is also a co-founder and serves as Executive Chairman of the board of Pathos AI, Inc., an AI-enabled drug development company that has entered into an agreement with us, is the managing partner and co-founder of Lightbank LLC, a private venture capital firm specializing in investments in technology companies that has invested in us, and is a trustee of the Lefkofsky Family Foundation. Mr. Lefkofsky's participation in and attention to these other endeavors may impact our business. In October 2022, for example, Lightbank and the Lefkofsky Family Foundation experienced a cybersecurity incident in which third party hackers gained access to Lightbank's internal computer services and were able to exfiltrate data regarding Lightbank's historical business practices and Mr. Lefkofsky's personal financial information. While the incident did not involve or impact Tempus' systems, this security breach or others like it could indirectly impact Tempus.

In addition, we depend on the services of our Chief Operating Officer, Ryan Fukushima. Mr. Fukushima is a co-Founder of Pathos AI, Inc. and currently serves as its interim Chief Executive Officer. Under the terms of his employment agreement with Tempus, Mr. Fukushima devotes no less than 50% of his professional activities to Tempus.

The individual and collective efforts of Mr. Lefkofsky, Mr. Fukushima and our other employees will be important as we continue to develop our Platform and additional products, and as we expand our commercial activities. The loss or incapacity of existing members of our executive management team, or the inability of such individuals to devote sufficient time to our endeavors, could adversely affect our operations if we experience difficulties in hiring qualified successors. While our executive officers have entered into employment agreements with us, they are at-will employees and we cannot guarantee their retention for any period of time. We do not maintain "key person" insurance on any of our employees, including Mr. Lefkofsky. Additionally, we have a number of key employees whose equity ownership in our company gives them a substantial amount of personal wealth. As a result, it may be difficult for us to continue to retain and motivate these employees, and this wealth could affect their decisions about whether or not they continue to work for us or at all.

Our research and development programs and laboratory operations depend on our ability to attract and retain highly skilled scientists and technicians. We may not be able to attract or retain qualified scientists and technicians in the future due to the competition for qualified personnel among life science businesses, particularly near our laboratories in Chicago, Atlanta, Raleigh, and Aliso Viejo.

We also face competition from universities and public and private research institutions in recruiting and retaining highly qualified scientific personnel. In addition, we may have difficulties locating, recruiting or retaining qualified sales representatives and business development managers, as well as software engineers. Recruiting and retention difficulties can limit our ability to support our research and development and sales programs. All of our employees are at-will, which means that either we or the employee may terminate their employment at any time. Our employees also are subject to certain post-employment noncompete obligations, unless otherwise prohibited by applicable law. On April 23, 2024, the FTC voted to finalize a rule banning almost all post-employment noncompetes, subject to narrow exceptions, including existing non-compete agreements with “senior executives” (as defined under the rule). However, on August 20, 2024, a federal judge in Texas issued a nationwide injunction on the implementation and enforceability of the FTC’s ban on non-competes. While the FTC may appeal this Texas ruling, the FTC’s non-compete ban is not likely to go into effect in the near-term future.

Further, certain macroeconomic conditions, which have been referred to as the Great Resignation, may result in higher than normal attrition in the sectors in which we operate, and in our business in particular. Our ability to manage human capital, and attract and retain the resources necessary to operate our business successfully, may suffer as a result.

We previously identified a material weakness in our internal control over financial reporting. If we fail to maintain an effective system of internal control over financial reporting, we may not be able to accurately report our financial results or prevent fraud.

Upon completion of our IPO, we are required to document and test our internal controls over financial reporting pursuant to Section 404 of Sarbanes-Oxley Act of 2002, or Section 404, so that our management can certify as to the effectiveness of our internal controls over financial reporting. Likewise, our independent registered public accounting firm is required to provide an attestation report on the effectiveness of our internal control over financial reporting at such time as we cease to be an “emerging growth company,” as defined in the Jumpstart our Business Startups Act of 2012, or the JOBS Act. At such time, our independent registered public accounting firm may issue a report that is adverse if a material weakness is identified.

In connection with the preparation of our consolidated financial statements, we identified a material weakness in our internal control over financial reporting as of December 31, 2021, as described below. A material weakness is a deficiency, or combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of our consolidated financial statements will not be prevented or detected on a timely basis.

We did not design or maintain an effective control environment due to an insufficient complement of personnel with the appropriate level of technical accounting and financial reporting knowledge and experience commensurate with our financial reporting requirements.

We determined the material weakness described above has been remediated as of December 31, 2022 as management has completed the design and implementation of controls over technical accounting and financial reporting, including the hiring of a Chief Accounting Officer and other key technical accounting and financial reporting roles to further develop and document our accounting policies and financial reporting procedures, including ongoing senior management review.

Refer to "Part II, Item 9A. Controls and Procedures" for management’s assertion with respect to the effective disclosure controls and procedures in place as of the end of the period covered by this Annual Report on Form 10-K.

Despite remediating the material weakness described above, we can give no assurance that any additional material weaknesses or restatements of financial results will not arise in the future due to a failure to implement and maintain adequate internal control over financial reporting or circumvention of these controls. If our management is unable to conclude that we have effective internal controls over financial reporting, or to certify the effectiveness of such controls, or if our independent registered public accounting firm cannot render an unqualified opinion on management’s assessment and the effectiveness of our internal control over financial reporting, or if material weaknesses in our internal controls are identified in the future, we could be subject to regulatory scrutiny and a loss of public confidence, which could have a material adverse effect on our business and our stock price.

Our disclosure controls and procedures may not prevent or detect all errors or acts of fraud.

We are subject to the periodic reporting requirements of the Exchange Act. We designed our disclosure controls and procedures to provide reasonable assurance that information we must disclose in reports we file or submit under the Exchange Act is accumulated, communicated to management, recorded, processed, summarized and reported within the time periods specified in the rules and forms of the SEC. We believe that any disclosure controls and procedures, no matter how well-conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met.

These inherent limitations include the realities that judgments in decision-making can be faulty, and that breakdowns can occur because of simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people or by an unauthorized override of the controls. Accordingly, because of the inherent limitations in our control system, misstatements due to error or fraud may occur and not be detected.

Our employees, principal investigators, consultants and commercial partners may engage in misconduct or other improper activities, including non-compliance with regulatory standards and requirements and insider trading.

We are exposed to the risk of fraud or other misconduct by our employees, principal investigators, consultants and commercial partners. Misconduct by these parties could include intentional failures to comply with the regulations of the FDA, CMS and non-U.S. regulators, comply with healthcare fraud and abuse laws and regulations in the United States and abroad, report financial information or data accurately or disclose unauthorized activities to us. In particular, sales, marketing, and business arrangements in the healthcare industry are subject to extensive laws and regulations intended to prevent fraud, misconduct, kickbacks, self-dealing and other abusive practices. These laws and regulations may restrict or prohibit a wide range of pricing, discounting, marketing and promotion, sales commission, customer incentive programs and other business arrangements. Such misconduct could also involve the improper use of information obtained in the course of clinical studies, which could result in regulatory sanctions and cause serious harm to our reputation. We currently have a code of conduct applicable to all of our employees, but it is not always possible to identify and deter employee misconduct, and our code of conduct and the other precautions we take to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses, or in protecting us from governmental investigations, lawsuits or other actions stemming from a failure to comply with these laws or regulations. If any such actions are instituted against us, and we are not successful in defending ourselves or asserting our rights, those actions could result in the imposition of significant civil, criminal and administrative penalties, including, without limitation, damages, monetary fines, individual imprisonment, disgorgement of profits, possible exclusion from participation in Medicare, Medicaid and other federal healthcare programs or comparable foreign programs, or from coverage of commercial payers, contractual damages, reputational harm, diminished profits and future earnings, additional reporting or oversight obligations if we become subject to a corporate integrity agreement or other agreement to resolve allegations of non-compliance with the law and curtailment or restructuring of our operations, which could have a significantly adverse impact on our business, financial condition and results of operations. Whether or not we are successful in defending against such actions, we could incur substantial costs and expenses, including legal fees, and divert the attention of management from the operation of our business.

Legal claims and proceedings could adversely impact our business.

We have been and may in the future be subject to threatened or actual legal claims and regulatory proceedings. We consider our historical experiences with such claims and proceedings to be in the normal course of our business or typical for our industry; however, it is difficult to assess the outcome of these matters, and we may not prevail in any current or future proceedings or litigation. For example, we have received a demand from a significant stockholder to provide certain of our books and records pursuant to Section 220 of the Delaware Corporation Law, and any future litigation related to this request could materially adversely affect us. Regardless of their merit, any threatened or actual claims or proceedings can require significant time and expense to investigate and defend. Since litigation is inherently uncertain, there is no guarantee that we will be successful in defending ourselves against such claims or proceedings, or that our assessment of the materiality of these matters, including any reserves taken in connection therewith, will be consistent with the ultimate outcome of such matters.

Certain of our officers, directors and principal stockholders may pursue corporate opportunities independent of us that could present conflicts with our and our stockholders' interests.

Certain of our officers, directors and principal stockholders are in the business of making or advising on investments in companies and hold (and may from time to time in the future acquire) interests in or provide advice or services to businesses that may directly or indirectly compete with our business or be suppliers or customers of ours. These persons may also pursue

acquisitions that may be complementary to our business or enter into lines that we may otherwise be well positioned to enter, and, as a result, those acquisition opportunities may not be available to us. For example our Chief Executive Officer, Founder, and Chairman, Eric Lefkofsky, is a co-founder and serves as Executive Chairman of the board of Pathos AI, Inc., a company engaged in the discovery and development of therapeutics and with whom we have a commercial relationship, as well as Lightbank LLC, a private venture capital firm specializing in investments in technology companies. Our charter provides that none of our officers or directors who are also an officer, director, employee, partner, managing director, principal, independent contractor or other affiliate of our principal stockholders will be liable to us or our stockholders for breach of any fiduciary duty by reason of the fact that any such individual pursues or acquires a corporate opportunity for its own account or the account of an affiliate, as applicable, instead of us, directs a corporate opportunity to any other person, instead of us or does not communicate information regarding a corporate opportunity to us.

If we were to be sued for product liability or professional liability, we could face substantial liabilities that exceed our resources.

The marketing, sale and use of our products could lead to the filing of product liability claims were someone to allege that our products identified inaccurate or incomplete information regarding the sample or information analyzed, reported inaccurate or incomplete information concerning the available therapies for a disease, or otherwise failed to perform as designed. We may also be subject to professional liability for errors in, a misunderstanding of, or inappropriate reliance upon, the information we provide in the ordinary course of our business activities. A product liability or professional liability claim could result in substantial damages and be costly and time-consuming for us to defend.

We maintain product and professional liability insurance, but this insurance may not fully protect us from the financial impact of defending against product liability or professional liability claims. Any product liability or professional liability claim brought against us, with or without merit, could increase our insurance rates or prevent us from securing insurance coverage in the future. Additionally, any product liability or professional liability lawsuit could damage our reputation or cause current clinical customers to terminate existing agreements with us and potential clinical customers to seek other partners, any of which could adversely impact our results of operations.

We depend on information technology systems, including on-premises, co-located and third-party data centers and platforms, and any interruptions of service or failures may impair and harm our business, financial condition and results of operations.

We depend on information technology and telecommunications systems for significant elements of our operations, including our laboratory information management system, our computational biology system, our AI algorithms, our knowledge management system, and our customer reporting. We have installed, and expect to expand, a number of enterprise software systems that affect a broad range of business processes and functional areas, including for example, systems handling human resources, financial controls and reporting, contract management, regulatory compliance and other infrastructure operations. In addition to the aforementioned business systems, we intend to extend the capabilities of both our preventative and detective security controls by augmenting the monitoring and alerting functions, the network design and the automatic countermeasure operations of our technical systems. These information technology and telecommunications systems support a variety of functions, including laboratory operations, test validation, sample tracking, quality control, customer service support, billing and reimbursement, research and development activities, scientific and medical curation and general administrative activities. In addition, our third-party provider of billing and collections services for late-stage clinical testing in the United States depends upon technology and telecommunications systems provided by its outside vendors.

We also rely on on-premises, co-located and third-party infrastructure throughout the United States to perform computationally demanding analysis tasks for our algorithmic diagnostic products and our data business, as well as for our research and development program and for other business purposes. Information technology and telecommunications systems are vulnerable to damage from a variety of sources, including telecommunications or network failures, malicious human acts and natural disasters. Moreover, despite network security and back-up measures, some of the servers upon which we rely are potentially vulnerable to physical or electronic break-ins, computer viruses and similar disruptive problems. Despite the precautionary measures we have taken to prevent problems that could affect our information technology and telecommunications systems, failures or significant downtime of our information technology or telecommunications systems or those used by our third-party service providers could prevent us from preparing and providing reports to physicians, billing payers, processing reimbursement appeals, handling patient or physician inquiries, conducting research and development activities and managing the administrative aspects of our business.

In the event of any technical problems that may arise in connection with our on-premises, co-located or third-party data centers, we could experience interruptions in our ability to provide AI-enabled products to our customers or in our internal functions, including research and development, which rely on such services, or to operate the other administrative aspects of our business. Interruptions or failures may be caused by a variety of factors, including infrastructure changes, human or software errors, viruses, worms, ransomware, security attacks, fraud, spikes in customer usage and denial of service issues. Interruptions or failures in our data analytics operations may reduce our revenue, result in the loss of customers, adversely affect our ability to attract new customers or harm our reputation. Significant interruptions to our research and development programs could cause us to delay the introduction of new products or improvements to existing products, which could adversely impact our business, financial condition, results of operations and the competitiveness of our products. In such events, our insurance policies may not adequately compensate us for losses that we may incur but such events could subject us to liability and cause us to issue credits or cause customers to abandon our products.

In addition, we currently use the Google Cloud Platform, or Google Cloud, for a substantial portion of our computing, storage, data processing, networking and other services. Any significant disruption of, or interference with, our use of Google Cloud could adversely affect our business, financial condition and results of operations. Google has broad discretion to change and interpret the terms of service and other policies with respect to us, and those actions may be unfavorable to our business operations. Google may also take actions beyond our control that could seriously harm our business, including discontinuing or limiting our access to one or more services, increasing pricing terms, terminating or seeking to terminate our contractual relationship altogether or altering how we are able to process data in a way that is unfavorable or costly to us. If our arrangements with Google Cloud were terminated, or we are forced to transition to a new cloud provider, we could experience interruptions in our ability to conduct our diagnostic tests or to make our data product available to customers, as well as delays and additional expenses in arranging for alternative cloud infrastructure services. Any transition to new cloud providers would be difficult to implement and would cause us to incur significant delays and expense.

Additionally, we are vulnerable to service interruptions experienced by Google Cloud and other providers, and we expect to experience interruptions, delays or outages in service availability in the future due to a variety of factors, including infrastructure changes, human, hardware or software errors, hosting disruptions and capacity constraints. The level of service provided by these providers, or regular or prolonged interruptions in that service, could also affect the use of, and our customers' satisfaction with, our products and could harm our business and reputation. In addition, hosting costs will increase as our customer base grows, which could harm our business if we are unable to grow our revenue faster than the cost of using these services or the services of other providers. Any of these factors could further reduce our revenue or subject us to liability, any of which could adversely affect our business, financial condition and results of operations.

If our information technology systems or those third parties with whom we work or our data, are or were compromised, we could experience adverse consequences resulting from such compromise, including but not limited to regulatory investigations or actions; litigation; fines and penalties; disruptions of our business operations; reputational harm; loss of revenue or profits; loss of customers or sales; and other adverse consequences.

In the ordinary course of our business, we and the third parties with whom we work, process proprietary, confidential, and sensitive data, including personal data (such as large amounts of personal health and financial information), intellectual property, and trade secrets, or collectively, sensitive information.

Cyber-attacks, malicious internet-based activity, online and offline fraud, and other similar activities threaten the confidentiality, integrity, and availability of our sensitive information and information technology systems, and those of the third parties with whom we work. Such threats are prevalent and continue to rise, are increasingly difficult to detect, and come from a variety of sources, including traditional computer "hackers," threat actors, "hacktivists," organized criminal threat actors, personnel (such as through theft or misuse), sophisticated nation states, and nation-state-supported actors. Some actors now engage and are expected to continue to engage in cyber-attacks, including without limitation nation-state actors for geopolitical reasons and in conjunction with military conflicts and defense activities. During times of war and other major conflicts, we, the third parties with whom we work, and our customers may be vulnerable to a heightened risk of these attacks, including retaliatory cyber-attacks, that could materially disrupt our systems and operations, supply chain, and ability to produce, sell and distribute our goods and services.

We and the third parties with whom we work are subject to a variety of evolving threats, including but not limited to social-engineering attacks (including through deep fakes, which may be increasingly more difficult to identify as fake, and phishing attacks), malicious code (such as viruses and worms), malware (including as a result of advanced persistent threat intrusions), denial-of-service attacks, credential stuffing attacks, credential harvesting, personnel misconduct or error, ransomware attacks, supply-chain attacks, software bugs, server malfunctions, software or hardware failures, loss of data or other information technology assets, adware, telecommunications failures, earthquakes, fires, floods, attacks enhanced or facilitated by AI, and other similar threats. In particular, severe ransomware attacks are becoming increasingly prevalent – particularly for companies like ours that are engaged in critical infrastructure or manufacturing – and can lead to significant

interruptions in our operations, ability to provide our products or services, loss of sensitive data and income, reputational harm, and diversion of funds. Extortion payments may alleviate the negative impact of a ransomware attack, but we may be unwilling or unable to make such payments due to, for example, applicable laws or regulations prohibiting such payments.

It may be difficult and/or costly to detect, investigate, mitigate, contain, and remediate a security incident. Our efforts to do so may not be successful. Actions taken by us or the third parties with whom we work to detect, investigate, mitigate, contain, and remediate a security incident could result in outages, data losses, and disruptions of our business. Threat actors may also gain access to other networks and systems after a compromise of our networks and systems.

Remote work has increased risks to our information technology systems and data, as our employees utilize network connections, computers and devices outside our premises or network, including working at home, while in transit and in public locations.

Future or past business transactions (such as acquisitions or integrations) could expose us to additional cybersecurity risks and vulnerabilities, as our systems could be negatively affected by vulnerabilities present in acquired or integrated entities' systems and technologies. Furthermore, we may discover security issues that were not found during due diligence of such acquired or integrated entities, and it may be difficult to integrate companies into our information technology environment and security program.

We rely on third parties to operate critical business systems to process sensitive information in a variety of contexts, including, without limitation, cloud-based infrastructure, data center facilities, encryption and authentication technology, employee email, content delivery to customers, and other functions. Our ability to monitor these third parties' information security practices is limited, and these third parties may not have adequate information security measures in place. If the third parties with whom we work experience a security incident or other interruption, we could experience adverse consequences. While we may be entitled to damages if the third parties with whom we work fail to satisfy their privacy or security-related obligations to us, any award may be insufficient to cover our damages, or we may be unable to recover such award.

While we have implemented security measures designed to protect against security incidents, there can be no assurance that these measures will be effective. We take steps designed to detect, mitigate, and remediate vulnerabilities in our information systems (such as our hardware and/or software, including that of third parties with whom we work). We may not, however, detect and remediate all such vulnerabilities including on a timely basis. Further, we may experience delays in developing and deploying remedial measures and patches designed to address identified vulnerabilities. Any of the previously identified or similar threats could cause a security incident or other interruption that could result in unauthorized, unlawful, or accidental acquisition, modification, destruction, loss, alteration, encryption, disclosure of, or access to our sensitive information or our information technology systems, or those of the third parties with whom we work. A security incident or other interruption could disrupt our ability (and that of third parties with whom we work) to provide our products and services.

We may expend significant resources or modify our business activities (including our clinical trial activities) to try to protect against security incidents. Certain data privacy and security obligations have required us to implement and maintain specific security measures or industry-standard or reasonable security measures to protect our information technology systems and sensitive information.

Applicable data privacy and security obligations may require us, or we may voluntarily choose, to notify relevant stakeholders, including affected individuals, customers, regulators, and investors, of security incidents, or to take other actions, such as providing credit monitoring and identity theft protection services. For example, notice of HIPAA breaches must be made to affected individuals, the Secretary of the Department of Health and Human Services or other state, federal or foreign regulators, including State Attorneys General, and for extensive breaches, notice may need to be made to the media. Such disclosures and related actions can be costly, and the disclosure or the failure to comply with such applicable requirements could lead to adverse consequences. If we (or a third party with whom we work) experience a security incident or are perceived to have experienced a security incident, we may experience material adverse consequences, such as government enforcement actions (for example, investigations, fines, penalties, audits, and inspections); additional reporting requirements and/or oversight; restrictions on processing sensitive information (including personal data); litigation (including class claims); indemnification obligations; negative publicity; reputational harm; monetary fund diversions; diversion of management attention; interruptions in our operations (including availability of data); financial loss; and other similar harms. Security incidents and attendant material consequences may prevent or cause customers to stop using our products and services, deter new customers from using our products and services, and negatively impact our ability to grow and operate our business. We have contingency plans and insurance coverage for certain potential claims, liabilities, and costs relating to security incidents that may arise from our business or operations; however, the coverage may not be sufficient to cover all claims, liabilities, and costs arising from the incidents, including fines and penalties. In addition, we cannot be certain that insurance for cybersecurity incidents will continue to be available to us on economically reasonable terms, or at all, or that any insurer will not deny coverage as to any future claim. Our contracts may not contain limitations of liability, and even where they do, there can be no assurance that limitations of liability in our contracts are sufficient to protect us from liabilities, damages, or claims related to our data privacy and security obligations. It could be difficult to predict the ultimate

resolution of any such incidents or to estimate the amounts or ranges of potential loss, if any, that could result therefrom. If we cannot successfully resolve a security incident or contain any potential loss, it could materially impact our business, financial condition and results of operations.

In addition to experiencing a security incident, third parties may gather, collect, or infer sensitive information about us from public sources, data brokers, or other means that reveals competitively sensitive details about our organization and could be used to undermine our competitive advantage or market position. Additionally, sensitive information of the Company or our customers could be leaked, disclosed, or revealed as a result of or in connection with our employees', personnel's, or vendors' use of generative AI technologies. Any sensitive information (including confidential, competitive, proprietary, or personal data) that we input into a third-party generative AI/machine learning platform could be leaked or disclosed to others, including if sensitive information is used to train the third parties' AI/machine learning model. Additionally, where an AI/machine learning model ingests personal data and makes connections using such data, those technologies may reveal other personal or sensitive information generated by the model. Moreover, AI/machine learning models may create flawed, incomplete, or inaccurate outputs, some of which may appear correct. This may happen if the inputs that the model relied on were inaccurate, incomplete or flawed (including if a bad actor "poisons" the AI/machine learning with bad inputs or logic), or if the logic of the AI/machine learning is flawed (a so-called "hallucination"). We may use AI/machine learning outputs to make certain decisions. Due to these potential inaccuracies or flaws, the model could be biased and could lead us to make decisions that could bias certain individuals (or classes of individuals), and adversely impact their rights, employment, and ability to obtain certain pricing, products, services, or benefits. If such AI/machine learning-based outputs are deemed to be biased, we could face adverse consequences, including exposure to reputational and competitive harm, customer loss, and legal liability.

Item 1B. Unresolved Staff Comments.

None.

Item 1C. Cybersecurity.

Risk Management and Strategy

Our business depends on our continued ability to collect and safeguard vast amounts of personal and sensitive business information, including, among other types of data, protected health information (PHI), employee information, credit card information, insurance information, proprietary and confidential information about our business, financial information, trade secrets, intellectual property, and the sensitive and confidential information from the third parties with whom we work. We have implemented and maintain various information security processes designed to identify, assess, and manage material risks from cybersecurity threats to our critical computer networks, third party hosted services, communications systems, and hardware and software, to safeguard and prevent unauthorized access to this critical data (collectively Information Systems and Data).

Our Chief Technology Officer, or CTO, and our Chief Information Security Officer, or CISO, together with our Enterprise Risk Management Committee help identify, assess, and manage the Company's cybersecurity threats and risks. Working with a cross-functional team, these individuals and our Enterprise Risk Management Committee identify and assess risks from cybersecurity threats by monitoring and evaluating our threat environment using various methods including, for example, manual and automated tools, subscribing to reports and services that identify cybersecurity threats, analyzing reports of threats and actors, conducting scans of the threat environment, evaluating our and our industry's risk profile, evaluating threats reported to us, conducting internal and/or external audits, conducting vulnerability assessments to identify vulnerabilities, using external intelligence feeds, and third-party-conducted red/blue team testing and tabletop incident response exercises.

Our Information Security program has six broad components: Controls & Compliance; Security Operations; Cloud Security; Identity and Access Management; Application Security; and Data Governance. Within each program component, and depending on the environment, we implement and maintain various technical, physical, and organizational measures, processes, standards, and policies to manage and mitigate material risks from cybersecurity threats to our Information Systems and Data, including, for example: maintaining a vulnerability management policy and disaster recovery/business continuity plans, risk assessments, encryption of data, network security controls, data segregation, access controls, physical security, asset management, tracking and disposal, a vendor risk management program, a dedicated cybersecurity staff/officer, active monitoring, detection, prevention, mitigation, and remediation strategies to ensure we are adequately safeguarding and protecting our critical information, routinely conducting audits, vulnerability scans, penetration tests, social engineering simulations, security awareness training, and threat intelligence assessments to ensure that our systems, policies, and procedures are operating as intended. We also engage with a range of external experts to help us evaluate and attest to

our risk management systems, including maintaining a certification pursuant to ISO 27001 and conducting periodic third-party audits to maintain our certification.

In addition, we maintain a detailed Incident Response Plan to assist in responding to potential cybersecurity threats. Our Incident Response Plan addresses critical aspects of incident management, including detection, impact analysis, containment, mitigation, remediation, recovery, and long-term strategies to prevent future incidents. Our Information Security and Privacy Teams conduct tabletop exercises twice per year to ensure preparedness for information security, including cybersecurity incidents. In addition, we promote a company culture of awareness and discipline in cybersecurity matters through annual employee training and education, including periodic phishing and social engineering simulations. We also maintain cybersecurity insurance coverage.

Our Privacy program is designed to support and enhance our Cybersecurity program. We perform an annual HIPAA Security Risk Assessment, among other things, to help identify remediation priorities and to ensure we have implemented best practices in storing and safeguarding PHI.

Our assessment and management of material risks from cybersecurity threats are integrated into the Company's overall risk management processes. For example, (1) cybersecurity risk is addressed as a component of the Company's enterprise risk management program; (2) the information security department works with management to prioritize our risk management processes and mitigate cybersecurity threats that are more likely to lead to a material impact to our business; (3) our Enterprise Risk Management Committee evaluates material risks from cybersecurity threats against our overall business objectives and reports to the board of directors, which evaluates our overall enterprise risk.

We frequently collaborate with other third-party service providers to conduct regular audits, threat assessments, and consultation on cybersecurity strategy, enhancements, and best practices. We use third-party service providers to assist us from time to time to identify, assess, and manage material risks from cybersecurity threats, including for example, professional services firms, including legal counsel, cybersecurity software providers, and penetration testing firms.

We use third-party service providers to perform a variety of functions throughout our business, such as application providers and cloud infrastructure providers. We have a vendor management program to manage cybersecurity risks associated with our use of these providers. The program includes security questionnaires, review of the vendor's written security program, review of security assessments, and security assessment calls with the vendor's security personnel. Depending on the nature of the services provided, the sensitivity of the Information Systems and Data at issue, and the identity of the provider, our vendor management process may involve different levels of assessment designed to help identify cybersecurity risks associated with a provider and impose contractual obligations related to cybersecurity on the provider.

For more information regarding the risks we face from cybersecurity threats, please see "Item 1A. Risk Factors" included elsewhere in this Annual Report on Form 10-K, including "Cyber-based attacks, security breaches, loss of data and other disruptions in relation to our information systems and computer networks could compromise sensitive information related to our business, prevent us from accessing it and expose us to substantial liability, which could adversely affect our business and reputation."

Governance

Our Board of Directors addresses the Company's cybersecurity risk management as part of its general oversight function. The Board of Directors' Audit Committee is responsible for overseeing Company's cybersecurity risk management processes, including oversight and mitigation of risks from cybersecurity threats.

Our cybersecurity risk assessment and management processes as well as our Information Security program are implemented and maintained by certain Company management, including our CTO and our CISO, who have 25 years of experience in cybersecurity and IT Operations respectively. Our CTO and CISO collaborate with a cross-functional team of seasoned professionals responsible for maintaining, improving, and promoting our Information Security program. In addition to the oversight by our Technology and Security leaders, representatives from our Information Technology, Legal, Privacy, Finance, Regulatory, Quality, and Compliance teams are integral to the successful implementation of our overall Information Security program.

The CISO is responsible for hiring appropriate personnel, helping to integrate cybersecurity risk considerations into the Company's overall risk management strategy, and communicating key priorities to relevant personnel. The CISO and CTO are responsible for approving budgets, helping prepare for cybersecurity incidents, approving cybersecurity processes, and reviewing security assessments and other security-related reports.

Our Incident Response Plan is designed to escalate certain cybersecurity incidents to members of management depending on the circumstances. This team works with the Company's incident response team to help the Company mitigate and remediate cybersecurity incidents of which they are notified. In addition, the Company's Incident Response Plan includes reporting to the Audit Committee of the board of directors for certain cybersecurity incidents.

Our CISO reports to the full Board of Directors quarterly, or more frequently as needed. These reports generally address each of the six components of our Information Security program, including the Company's progress on initiatives we have prioritized for the quarter. Our Audit Committee has general oversight responsibility for our data security practices, and we believe the Committee has the requisite skills and visibility into the risk profile of our Company to fulfill this responsibility effectively. Our CTO, CISO, or other members of our Enterprise Risk Management Committee report to the Audit Committee quarterly or on an as-needed basis.

Senior members of our management are responsible for assisting our CTO and CISO in managing cybersecurity risk. We maintain a cross-functional Enterprise Risk Management Committee, which meets monthly to identify, assess, mitigate, and remediate risks impacting the Company, including cybersecurity risks. Members of this committee include our CISO, CTO, Chief Financial Officer, Chief Privacy Officer, General Counsel, Chief Commercial Officer, Chief Scientific Officer, Chief Medical Officer, Chief Legal Officer, and the heads of our Regulatory and Quality teams. The Enterprise Risk Management Committee informs members of the Audit Committee regarding the overall enterprise risks identified by management, progress on remediation efforts identified in the prior quarter, and risk mitigation priorities for the forthcoming quarter.

Item 2. Properties.

Our headquarters is located in Chicago, Illinois, where we lease approximately 217,000 square feet of laboratory and office space pursuant to a lease that expires in February 2029. We also lease an aggregate of approximately 22,000 square feet of laboratory and office space in Atlanta, Georgia pursuant to a lease that will expire in September 2029. Our CLIA-certified laboratories are located in these facilities. We also have genomics labs in Raleigh, North Carolina and Aliso Viejo, California. We also have offices in New York, New York and Redwood City, California. We do not own any real property. While we believe our existing facilities are adequate to meet our current requirements, we expect to expand our facilities as our operations grow over time. We believe we will be able to obtain such additional space on acceptable and commercially reasonable terms.

Item 3. Legal Proceedings.

From time to time, we may be involved in various legal proceedings, including commercial claims from customers and vendors, potential lawsuits seeking damages and/or injunctive relief, employment disputes, subpoenas, government investigations, regulatory or administrative proceedings, and other types of matters arising from the normal course of business activities. We may also initiate such proceedings against various third parties. Defending against and pursuing such proceedings is costly and can impose a significant burden on management and employees. The results of any current or future litigation cannot be predicted with certainty, and regardless of the outcome, litigation can have an adverse impact on us because of defense and settlement costs, diversion of management resources, and other factors. Except as described below, we believe there are currently no pending legal proceedings to which we or our property are subject that could have a material adverse effect on our financial position, results of operations or cash flows.

Although no formal legal proceeding has been instituted, from time to time, we receive requests from governmental agencies, or third parties working on their behalf, for documents and information related to our products and services. For example, on May 19, 2022, we received a subpoena from the Office of the Ohio Attorney General. The subpoena required production of certain billing and patient records associated with nine Ohio Medicaid patients who received our clinical diagnostic tests between 2019 and 2022. We provided responsive documents in June 2022 and have not received additional inquiry from the Ohio Attorney General's office since that time.

Similarly, on March 4, 2024, we received a Civil Investigative Demand, or CID, from the U.S. Attorney's Office for the Eastern District of New York. The CID requested documents and other information related to our compliance with the False Claims Act, the Anti-Kickback statute, and in particular 42 C.F.R. § 414.510(b), which is commonly referred to as the Medicare 14-Day or Date of Service Rule. We provided an initial production on April 4, 2024, and have produced additional responsive documents on a rolling basis since that time. We have not received additional inquiry from the U.S. Attorney's Office since our last document production.

While we believe our programs and payments comply with the Anti-Kickback statute, no assurance can be given as to the timing or outcome of the government's investigation, or that it will not result in a material adverse effect on our business. In addition, we have received requests for medical records and billing information from certain Unified Program Integrity Coordinators or other third parties working on the government's behalf regarding clinical diagnostic services provided by Tempus to patients enrolled in the Medicare and Medicaid programs. We have responded to all such requests for information.

On June 11, 2024, Guardant filed a complaint against us in the U.S. District Court for the District of Delaware. The complaint alleges that the Tempus xF, Tempus xF+, Tempus xM Monitor and Tempus xM MRD products use liquid biopsy technology that infringes five Guardant U.S. patents. The complaint seeks injunctive relief, unspecified monetary damages (including enhanced damages), a future mandatory royalty, costs and attorneys fees.

We assess legal contingencies to determine the degree of probability and range of possible loss for potential accrual in its financial statements. When evaluating legal contingencies, we may be unable to provide a meaningful estimate due to a number of factors, including the procedural status of the matter in question, the presence of complex or novel legal theories, and/or the ongoing discovery and development of information important to the matters. In addition, damage amounts claimed may be unsupported, exaggerated or unrelated to possible outcomes, and as such are not meaningful indicators of potential liability. Loss contingencies, including claims and legal actions arising in the ordinary course of business, are recorded as liabilities when the likelihood of loss is probable and an amount or range of loss can be reasonably estimated.

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 and Holders of Record

Our Class A common stock is currently listed on the Nasdaq Global Select Market under the symbol "TEM." As of February 21, 2025, there were 23 holders of record of our Class A common stock and 2 holders of record of our Class B common stock. Because many of our shares of Class A common stock are held by brokers and other institutions on behalf of stockholders, we are unable to estimate the total number of stockholders represented by these record holders.

Dividend Policy

Historically, we paid cash and stock dividends on our preferred stock. Following the conversion of our preferred stock into Class A common stock and Class B common stock in connection with our IPO, we currently intend to retain all available funds and future earnings, if any, to fund the development and expansion of our business, and we do not anticipate paying any cash dividends in the foreseeable future. Any future determination regarding the declaration and payment of dividends, if any, will be at the discretion of our board of directors and will depend on then-existing conditions, including our financial condition, operating results, contractual restrictions, capital requirements, business prospects and other factors our board of directors may deem relevant.

Recent Sales of Unregistered Equity Securities

Prior to our IPO, and pursuant to the terms of the applicable convertible preferred stock, in January 2024, we issued 66,465 shares of Series G-3 convertible preferred stock to the holders of Series G-3 convertible preferred stock and 10,666 shares of Series G-4 convertible preferred stock to the holders of Series G-4 convertible preferred stock, in each case as payment of paid-in-kind dividends.

Prior to our IPO, in April 2024, we issued and sold an aggregate of 6,172,839 shares of Series G-5 convertible preferred stock at a price per share of \$57.3069, for an aggregate purchase price of approximately \$200.0 million, in a private placement to an accredited investor.

Prior to our IPO, and in connection with an agreement and plan of merger to acquire Mpirik Inc., we issued 8,724 additional shares of Class A common stock to former stockholders of Mpirik Inc. pursuant to the acquisition arrangements.

Prior to our IPO, and in connection with our acquisition of SEngine Precision Medicine LLC, or SEngine, in February 2024 and June 2024, we issued 429 and 19,620 additional shares, respectively, of Class A common stock to former stockholder of SEngine pursuant to the acquisition arrangements.

In connection with the closing of our IPO in June 2024, we issued 109,459 shares of Class A common stock to Allen & Company LLC upon its net exercise of a warrant, with an exercise price of \$10 per share.

On December 11, 2024, we issued 205,847 shares of our Class A common stock to Revolution Growth Management Company, Inc. upon the exercise of an option to purchase 210,000 shares of our Class A common stock, having an exercise price of \$0.8542 per share. The option was granted under the 2015 Plan and was exercised on a cashless basis and included 4,153 shares withheld pursuant to the cashless exercise.

None of the foregoing transactions involved any underwriters, underwriting discounts or commissions, or any public offering. The sales of the above securities were deemed to be exempt from registration under the Securities Act in reliance on Section 4(a)(2) of the Securities Act (and/or Regulation D or Regulation S promulgated thereunder) or Rule 701 promulgated under Section 3(b) of the Securities Act as transactions by an issuer not involving any public offering or pursuant to benefit plans and contracts relating to compensation as provided under Rule 701.

Use of Proceeds

On June 17, 2024, we completed our IPO in which we issued and sold 11,100,000 shares of Class A common stock, at a public offering price of \$37.00 per share. We received net proceeds of \$382.0 million after deducting underwriting

discounts and commissions of \$28.7 million. In connection with the closing of the IPO, all shares of our then-outstanding convertible preferred stock automatically converted into an aggregate of 66,640,660 shares of Class A common stock. All shares sold were registered pursuant to a registration statement on Form S-1 (File No. 333-279558), as amended (the “Registration statement”), declared effective by the SEC on June 13, 2024. Morgan Stanley & Co. LLC, J.P. Morgan Securities LLC and Allen acted as representatives of the underwriters for the IPO. The offering terminated after the sale of all securities registered pursuant to the Registration Statement. No payments for such expenses were made directly or indirectly to (i) any of our officers or directors or their associates, (ii) any persons owning 10% or more of any class of our equity securities, or (iii) any of our affiliates.

We used a portion of the net proceeds from our IPO to satisfy tax withholding and remittance obligations related to RSU Net Settlement and for working capital for the quarter ended December 31, 2024 . There has been no material change in the expected use of the net proceeds from our IPO as described in the Final Prospectus dated as of June 13, 2024 and filed with the SEC pursuant to Rule 424(b)(4) on June 17, 2024.

Purchases of Equity Securities by the Issuer and Affiliated Purchasers

None.

Securities Authorized for Issuance under Equity Compensation Plans

Information regarding our equity compensation plans and the securities authorized for issuance thereunder is set forth in Part III, Item 12 of this Annual Report on Form 10-K.

Stock Performance Graph

This graph is not "soliciting material" is not deemed "filed" with the SEC and is not to be incorporated by reference into any of our filings under the Securities Act or the Exchange Act, whether made before or after the date hereof and irrespective of any general incorporation language in any such filing.

The following graph below shows the cumulative total return to our stockholders between June 14, 2024 (the date that our Class A common stock commenced trading on the Nasdaq Global Select Market) through December 31, 2024 relative to the Nasdaq Composite Index and the Nasdaq Biotechnology Index. The graph assumed that \$100 was invested in each of our Class A common stock, the Nasdaq Composite and the Nasdaq Biotechnology at their respective closing prices on June 14, 2024 and assumes reinvestment of gross dividends. The stock price performance shown in the graph represents past performance and should not be considered an indication of future stock price performance.



Item 6. [Reserved]

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with the consolidated financial statements and related notes included elsewhere in this Annual Report on Form 10-K. Some of the information contained in this discussion and analysis, including information with respect to our planned investments in our sales and marketing, research and development, and general and administrative functions, includes forward-looking statements that involve risks and uncertainties. You should review the sections titled "Note Regarding Forward-Looking Statements" and "Risk Factors" in this Annual Report on Form 10-K for a discussion of forward-looking statements and important factors that could cause actual results to differ materially from the results described in or implied by the forward-looking statements contained in the following discussion and analysis. The following discussion provides a narrative of our financial condition and results of operations for the fiscal year ended December 31, 2024 compared to the fiscal year ended December 31, 2023. A discussion regarding our financial condition and results of operations for the fiscal year ended December 31, 2023 compared to the fiscal year ended December 31, 2022 can be found in "Management's Discussion and Analysis of Financial Condition and Results of Operations" in our final prospectus, dated June 13, 2024, filed with the Securities and Exchange Commission on June 17, 2024, which is incorporated herein by reference.

Overview

Tempus is a technology company focused on healthcare that straddles two converging worlds. We strive to combine deep healthcare expertise, providing next-generation diagnostics across multiple disease areas, with leading technology capabilities, harnessing the power of data and analytics to help personalize medicine. We endeavor to unlock the true power of precision medicine by creating Intelligent Diagnostics through the practical application of artificial intelligence, or AI, in healthcare. Intelligent Diagnostics use AI, including generative AI, to make laboratory tests more accurate, tailored, and personal. Unlike traditional diagnostic labs, we can incorporate unique patient information, such as clinical, molecular, and imaging data, with the goal of making our tests more intelligent and our results more insightful. Unlike other technology companies, we are deeply rooted in clinical care delivery as one of the largest sequencers of cancer patients, and patients with other diseases, in the United States. Straddling both worlds is advantageous as we believe Intelligent Diagnostics represent the future of precision medicine, informing more personalized and data-driven therapy selection and development. We believe their adoption could empower physicians to deliver better care and researchers to develop more precise therapies, with the potential to save millions of lives.

In order to bring AI to healthcare at scale, we believe the foundation of how data flows throughout the ecosystem needs to be rebuilt. We established new data pipes, going to and from providers, to allow for the free exchange of data between physicians, who interpret data, and diagnostic and life science companies, who provide data, integrating relevant clinical data, such as outcomes, or adverse events, which are essential for many clinical decisions. Without this capability, we believe that data would continue to accumulate without impacting patient care. To accomplish this, we built both a technology platform to free healthcare data from silos and an operating system to make this data useful, the combination of which we refer to as our Platform. Our Platform connects multiple stakeholders within the larger healthcare ecosystem, often in real time, to assemble and integrate the data we collect, thereby providing an opportunity for physicians to make data-driven decisions in the clinic and for researchers to discover and develop therapeutics. We aim to help physicians find the best therapies for their patients, help pharmaceutical and biotechnology companies make the best drugs possible, and enable patients to access emerging therapies and clinical trials when appropriate.

We currently offer three product lines: Genomics, Data and AI Applications. Each product line is designed to enable and enhance the others, thereby creating network effects in each of the markets in which we operate. We are able to commercialize records multiple times, both at the time a test is run and thereafter. Our Genomics product line leverages our state-of-the-art laboratories to provide next generation sequencing, or NGS diagnostics, polymerase chain reaction, or PCR, profiling, molecular genotyping and other anatomic and molecular pathology testing to healthcare providers, pharmaceutical companies, biotechnology companies, researchers, and other third parties. The data generated in our lab or ingested into our platform as part of the Genomics product line is structured and de-identified, prior to commercialization. This de-identified database is then commercialized to our pharmaceutical and biotechnology partners to facilitate drug discovery and development through two primary Data and Services products, Insights and Trials. Our third product line, AI Applications, is focused on developing and providing diagnostics that are algorithmic in nature, implementing new software as a medical device, and building and deploying clinical decision support tools.

We primarily operate in the United States and generated total revenue of \$693.4 million and \$531.8 million in the years ended December 31, 2024 and 2023, respectively. We also incurred net losses of \$705.8 million and \$214.1 million in the years ended December 31, 2024 and 2023, respectively. We generated adjusted EBITDA of \$(104.7) million and \$(154.2) million in the years ended December 31, 2024 and 2023, respectively. Adjusted EBITDA is a non-GAAP financial measure. For a reconciliation of adjusted EBITDA to net loss, the most directly comparable financial measure stated in accordance with generally accepted accounting principles in the United States of America, or GAAP, and for additional information about adjusted EBITDA, a non-GAAP financial measure, see "—Non-GAAP Financial Measure."

Acquisition of Ambry Genetics Corporation

On November 4, 2024, we entered into a Securities Purchase Agreement, or the Purchase Agreement, with REALM IDx, Inc., a Delaware corporation, or the Seller, and the Seller's ultimate parent, Konica Minolta, Inc., a Japanese corporation, as guarantor, pursuant to which we agreed to purchase all of the outstanding shares of capital stock of Ambry Genetics Corporation, a Delaware corporation, or Ambry, a leader in genetic testing that aims to improve health by understanding the relationship between genetics and disease. Such transaction is hereinafter referred to as the Acquisition. Pursuant to the terms of the Purchase Agreement, consideration for the Acquisition consisted of \$375.0 million in cash, subject to adjustment for cash, unpaid indebtedness, unpaid transaction expenses and net working capital of Ambry, or the Cash Consideration, plus an aggregate of 4,843,136 shares, or the Shares, of our Class A common stock, or the Stock Consideration. We issued the Shares as Stock Consideration to the Seller on February 3, 2025 upon the closing of the Acquisition. Pursuant to the terms of the Purchase Agreement, 2,152,505 of the Shares are subject to a lock-up for a period of one year following the closing date of the Acquisition. In addition, \$5.0 million of the Cash Consideration are held in an escrow account for purposes of satisfying any post-closing purchase price adjustments.

In connection with the closing of the Acquisition, we entered into an amendment to the Credit Agreement (as defined below), providing for an additional \$200.0 million in senior secured term loans, or the Additional Term Loan Facility, and \$100.0 million in senior secured revolving loan commitments, or the Revolving Credit Facility. We utilized borrowings under the Additional Term Loan Facility and the Revolving Credit Facility to fund the Cash Consideration for the Acquisition and to pay fees and expenses related thereto.

Initial Public Offering

On June 13, 2024, the registration statement relating to the initial public offering of our Class A common stock, or our IPO, was declared effective and shares of our Class A common stock began trading on the Nasdaq Global Select Market on June 14, 2024. On June 17, 2024, we completed our IPO in which we issued and sold 11,100,000 shares of Class A common stock, at a public offering price of \$37.00 per share. We received net proceeds of \$382.0 million after deducting underwriting discounts and commissions of \$28.7 million.

In connection with the closing of the IPO, all shares of our then-outstanding redeemable convertible preferred stock, other than our Series B redeemable convertible preferred stock, converted into an aggregate of 66,309,550 shares of Class A common stock. Series B redeemable convertible preferred stock converted on a one-for-one basis into an aggregate of 5,374,899 shares of Class B common stock. Subsequently, 331,110 shares of Class B common stock were automatically converted into shares of Class A common stock, such that there are 5,043,789 shares of Class B common stock outstanding. We issued an additional 236,719 shares of Class A common stock to an investor in Series G-3 preferred stock, pursuant to a separate agreement further described in Note 10.

As of June 16, 2024, our redeemable convertible preferred stock had accrued \$188.2 million of unpaid dividends, which were paid in 5,098,799 shares of Class A common stock at the closing of the IPO.

Outstanding shares of non-voting common stock were converted on a one-for-one basis into 5,069,477 shares of Class A common stock.

The restricted stock units, or RSUs, granted to employees are subject to two vesting conditions. The first is a time-based component. The second vesting condition is the occurrence of a liquidity event. The liquidity event condition related to these awards was satisfied upon the effectiveness of the IPO. Upon effectiveness of the IPO, we recognized \$488.3 million of stock-based compensation expense during the three months ended June 30, 2024. To meet the related tax withholding requirements, we withheld 1,911,316 shares of the 4,563,164 shares of Class A common stock issued. Based on the IPO public offering price of \$37.00 per share, the tax withholding obligation was \$70.8 million.

We issued 109,459 shares of Class A common stock related to the exercise of a warrant issued to Allen, as further described in Note 9 to our consolidated financial statements included elsewhere in this Annual Report on Form 10-K, which was subject to automatic net exercise upon the IPO.

In connection with the IPO, we amended and restated our certificate of incorporation, under which authorized capital stock consists of 1,000,000,000 shares of Class A common stock, 5,500,000 shares of Class B common stock, and 20,000,000 shares of preferred stock.

Strategic Collaborations

AstraZeneca

In November 2021, we entered into a Master Services Agreement, or, as amended in October 2022, February 2023 and December 2023, the MSA, with, and issued a warrant to, AstraZeneca AB, or AstraZeneca. Under the MSA, we agreed, on a non-exclusive basis, to provide AstraZeneca with certain of our products and services, including licensed data, sequencing, clinical trial matching, organoid modeling services, algorithm development, and others. In exchange for certain discounted prices, AstraZeneca has committed to spend a minimum of \$220 million on such products and services during the term of the MSA. The term of the MSA will continue through December 31, 2028, unless terminated sooner. The minimum commitment may increase from \$220 million to \$320 million through December 2028 if the average closing price of our Class A common stock exceeds two times the IPO price (as defined below) for any 30-day trading period following the one-year anniversary of our IPO.

Under the warrant, AstraZeneca had the right to purchase up to \$100 million in shares of our Class A common stock at an exercise price equal to \$37.00 per share, representing the public offering price in our IPO, or the IPO price. The warrant was exercisable through December 31, 2026. Under the terms of the warrant, AstraZeneca would be entitled to substantially the same registration rights with respect to the shares under the warrant as those granted to holders of registrable securities pursuant to our Ninth Amended and Restated Investors' Rights Agreement, dated November 19, 2020. The warrant was automatically cancelled and terminated for no consideration as AstraZeneca declined to extend its financial commitment before December 31, 2024.

GlaxoSmithKline

In August 2022, we entered into a Strategic Collaboration Agreement, or, as amended in May 2024, the GSK Agreement, with GlaxoSmithKline, or GSK. Under the GSK Agreement, we agreed, on a non-exclusive basis, to provide GSK with certain of our products and services, including licensed data, sequencing, clinical trial matching, organoid modeling services, algorithm development, and others. In exchange for certain discounted prices, GSK has committed to spend a minimum of \$180 million on such products and services during the term of the GSK Agreement, of which \$70 million was paid upon execution. The term of the GSK Agreement will continue through December 31, 2027, unless terminated sooner. An additional commitment of up to \$120 million may be triggered at GSK's election for the years 2028, 2029 and 2030.

Recursion Master Agreement

In November 2023, we entered into a Master Agreement, or the Recursion Agreement, with Recursion Pharmaceuticals, Inc., or Recursion. Under the Recursion Agreement, we agreed to provide certain of our services and to license certain data to Recursion, including a limited right to access our proprietary database of de-identified clinical and molecular data for certain therapeutic product development purposes. In exchange for these rights, Recursion will pay an initial license fee of \$22 million and an annual license fee throughout the term of the agreement, which, together with the initial license fee, totals up to \$160 million. The term of the Recursion Agreement will continue through November 3, 2028, unless terminated sooner. In addition to mutual rights to terminate for an uncured breach of the Recursion Agreement, Recursion may terminate the agreement for convenience after three years upon 90 days prior notice, subject to payment by Recursion of an early termination fee.

The initial license fee and each annual license fee are payable at Recursion's option either in the form of (x) cash, (y) shares of Recursion's Class A common stock, or (z) a combination of cash and shares of Recursion's Class A common stock in such proportion as is determined by Recursion in its sole discretion; provided that the aggregate number of shares of Recursion's Class A common stock to be issued to us under the Recursion Agreement shall not exceed 19.9% of the aggregate total of shares of Recursion Class A common stock and Class B common stock outstanding on November 3, 2023, or the date immediately preceding the date any shares of Class A common stock are issued pursuant to the Recursion

Agreement, whichever is less. We have customary registration rights with respect to any shares of Recursion's Class A common stock issued pursuant to the Recursion Agreement.

Factors Affecting Our Performance

We believe there are several important factors that have impacted and that we expect will impact our operating performance and results of operations. While each of these areas presents significant opportunities for us, they also pose significant risks and challenges that we must address. See "Part I, Item 1A.—Risk Factors" for more information.

Research and Development and New Products

We expect to maintain high levels of investment in product innovation over the coming years as we continue to develop new laboratory assays, develop algorithms, and expand our Platform into new disease areas. These investments will include laboratory costs incurred in validating new or improving current assays, licensing of data sets to accelerate our efforts in new diseases, and development and validation costs for new Algos products. We invested \$149.3 million and \$90.3 million during the years ended December 31, 2024 and 2023, respectively, in research and development. Our ability to develop new products, obtain regulatory approvals when required, launch them into the market, and drive adoption of these products by our customers will continue to play a key role in our results.

Customer Acquisition and Expansion

To grow our business requires both identifying new customers and expanding our partnerships with existing ones across each of our product lines. For Genomics, this entails our field salesforce developing relationships with individual physicians and hospital systems, demonstrating the power our Platform has in enabling them to provide personalized care to their patients. For Data, this entails our pharmaceutical business development teams demonstrating the power our Platform and database have in enabling drug discovery, development and clinical trial matching for our pharmaceutical partners. For AI Applications, this entails demonstrating the utility of these algorithms in a clinical setting. Since our inception, our offerings have been used by more than 7,500 physicians and we have worked with over 200 biotech companies, as well as 19 of the 20 largest public pharmaceutical companies based on 2023 revenue, albeit with many we are still at an early stage of adoption. Our financial performance relies heavily on our ability to add customers to our Platform and expand the relationships with our current customers through adoption of our new products.

Investments in Technology

Technology is at the core of everything we do. From receiving orders and ingesting data through our various provider integrations to delivering test results and access to our analytical platform, our Platform plays a key role in driving our business. We will continue to make significant investments in our Platform to continually improve our user experience and allow us to generate, ingest and structure data more efficiently as we expand our offerings. We invested \$167.5 million and \$95.2 million during the years ended December 31, 2024 and 2023, respectively, in technology. We expect to maintain high levels of investment in our technology over the coming years as we continue to develop new features to support our current and future business needs. Our ability to execute on the development of such technology will continue to play a key factor in our results.

Payer Coverage and Reimbursement

Our financial performance relies heavily on our ability to secure reimbursement from payers and government health benefits programs. A substantial majority of the genomic testing we perform is clinical in nature. We typically receive reimbursement for these tests from commercial payers and from government health benefits programs, such as Medicare and Medicaid. The amount of payment we receive varies widely and depends on a variety of factors, including the payer, the assay run, and other characteristics about the patient. As of December 31, 2024, we had received payment on approximately 55% of our clinical oncology NGS tests across all payers performed from January 1, 2022 through December 31, 2023. We calculated this metric on a trailing basis based on payer adjudication timing. However, we continued to perform our NGS tests through December 31, 2024. For the years ended December 31, 2024 and 2023, our average reimbursement for NGS tests in oncology was approximately \$1,510 and \$1,450, respectively. We will continue to invest significantly in various efforts aimed at improving our average reimbursement, including performing clinical studies to generate evidence of clinical utility, seeking regulatory approval for our tests, and opening additional lab locations. Any changes to medical policies impacting how our tests are reimbursed could have a significant impact on our results.

Components of Results of Operations

Revenue

We currently primarily derive our revenue from two product lines: (1) Genomics and (2) Data and services.

Genomics

Genomics primarily includes revenue from diagnostics, PCR profiling, and other anatomic and molecular pathology testing to healthcare providers, pharmaceutical companies, biotechnology companies, researchers, and other third parties.

Data and Services

Data and services primarily includes revenue from de-identified data generated through our Genomics product line to our pharmaceutical and biotechnology partners for use in their drug development efforts. These transactions consist of data licensing agreements, AI-enabled clinical trial matching, and analytical services. Our Data revenue is typically back-weighted towards the second half of the year based on the budgeting cycles of our customers. We currently report our AI Applications revenue within this line item as it is immaterial.

Cost and Operating Expenses

We incur costs to generate revenue for each of our two primary product lines. Cost of revenues for our Genomics product line is a higher percentage of the Genomics revenue than cost of revenues for Data and services is as a percentage of Data and services revenue. As revenue shifts between these product lines, total cost of revenue as a percentage of revenue will be impacted.

Cost of Revenues, Genomics

Cost of revenues for Genomics primarily includes personnel lab expenses, including salaries, bonuses, employee benefits and stock-based compensation expenses (which we refer to as “personnel costs”), and amortization of intangible assets, cost of laboratory supplies and consumables, laboratory rent expense, depreciation of laboratory equipment and shipping costs. Costs associated with performing our tests are recorded as the tests are processed at the time of report delivery. We expect these costs will increase in absolute dollars as our Genomics revenue continues to grow.

Cost of Revenues, Data and Services

Cost of revenues for Data and services primarily includes data acquisition and royalty fees, and personnel costs related to delivery of our data services and platform, cloud costs, and certain allocated overhead expenses. Costs associated with performing data product services are recorded as incurred. We expect these costs will increase in absolute dollars as our Data and services revenue continues to grow. We currently report our AI Applications cost of revenue within this line item as it is immaterial.

Research and Development

Research and development expense primarily includes costs incurred to develop new assays and products, including validation costs, research and development and allocated lab personnel costs, salaries and benefits of the company’s scientific and laboratory research and development teams, amortization of intangible assets, inventory costs, overhead costs, contract services and other related costs. Research and development costs are expensed as incurred. We plan to continue to invest in new assay development and expansion into new disease areas. As a result, we expect that research and development expenses will increase in absolute dollars for the foreseeable future as we continue to invest to support these activities.

Technology Research and Development

Technology research and development expense primarily includes personnel costs incurred related to the research and development of our technology platform and applications and the research and development of new products that we hope to bring to the market. Technology research and development costs are expensed as incurred. We plan to continue to invest in technology personnel to support our Platform and new algorithm development. We expect that technology research and development expenses will increase in absolute dollars for the foreseeable future as we continue to invest to support these activities.

Selling, General and Administrative

Our selling, general and administrative expense primarily includes personnel costs for our sales, executive, accounting and finance, legal and human resources functions, commissions, and other general corporate expenses, including software and tools, professional services, real estate costs, and travel costs.

We expect that our selling, general and administrative expenses will continue to increase in absolute dollars after our IPO, primarily due to increased headcount and costs associated with operating as a public company, including expenses related to legal, accounting, regulatory, maintaining compliance with exchange listing and requirements of the SEC, director and officer insurance premiums and investor relations. These expenses, though expected to increase in absolute dollars, are expected to decrease modestly as a percentage of revenue in the long term, though they may fluctuate as a percentage from period to period due to the timing and extent of these expenses. As the performance-based vesting condition of our RSUs was satisfied in connection with our IPO, we will continue to record stock-based compensation expenses associated with the vesting of RSUs in the quarter in which such vestings occur.

Interest Income

Interest income consists of interest earned on our cash and cash equivalents.

Interest Expense

Interest expense consists primarily of interest from our Amended Note and Term Loan Facility (each as defined in “—Liquidity and Capital Resources”), and finance leases. Interest expense related to our convertible debt will continue, but should decrease over time as the principal amount decreases.

Other Income, Net

Other income, net consists of foreign currency exchange gains and losses, gains and losses on marketable equity securities, income from the Intellectual Property Agreement, or the IP License Agreement, with SB Tempus Corp., or SB Tempus, and any changes in fair value related to our warrant assets and liabilities. Foreign currency exchange gains and losses relate to transactions and asset and liability balances denominated in currencies other than the U.S. dollar. We expect our foreign currency gains and losses to continue to fluctuate in the future due to changes in foreign currency exchange rates. We hold shares of common stock of Recursion and Personalis, Inc., or Personalis, which are recorded within marketable equity securities. These shares are marked to market each reporting period. We issued a warrant to our customer AstraZeneca in conjunction with the signing of the MSA in November 2021. We have a warrant asset related to a November 2023 Commercialization and Reference Laboratory Agreement with Personalis, which was exercised in August 2024. The fair value of the warrant assets and liabilities are measured each reporting period.

Provision for Income Tax

Provision for income taxes consists of U.S. federal and state income taxes and income taxes in certain foreign jurisdictions in which we conduct business, as adjusted for non-deductible expenses, and changes in the valuation of our deferred tax assets and liabilities. We maintain a full valuation allowance on our U.S. federal and state deferred tax assets as we have concluded that it is more likely than not that the deferred tax assets will not be realized.

Losses from Equity Method Investments

Losses from equity method investments consist of earnings from our joint venture and equity method investments.

Results of Operations

The following table sets forth the significant components of our results of operations for the periods presented (in thousands).

	Year Ended December 31,	
	2024	2023
Net revenue		
Genomics	\$ 451,749	\$ 363,022
Data and services	241,649	168,800
Total net revenue	\$ 693,398	\$ 531,822
Cost and operating expenses		
Cost of revenues, genomics	243,467	189,165
Cost of revenues, data and services	68,818	56,482
Technology research and development	167,519	95,155
Research and development	149,325	90,343
Selling, general and administrative	755,351	296,760
Total cost and operating expenses	1,384,480	727,905
Loss from operations	\$ (691,082)	\$ (196,083)
Interest income	11,084	7,601
Interest expense	(53,653)	(46,869)
Other income, net	32,336	21,822
Loss before provision for income taxes	(701,315)	(213,529)
Provision for income taxes	(266)	(288)
Losses from equity method investments	(4,228)	(301)
Net Loss	\$ (705,809)	\$ (214,118)

Comparison of the years ended December 31, 2024 and 2023

Revenue

	Year Ended December 31,		\$ Change	% Change
	2024	2023		
	(in thousands, except percentages)			
Genomics	\$ 451,749	\$ 363,022	\$ 88,727	24%
Data and services	241,649	168,800	72,849	43%
Total Net Revenue	\$ 693,398	\$ 531,822	\$ 161,576	30%

The increase in revenue for the year ended December 31, 2024, compared to the same period in 2023, was due to increased volume and reimbursement of clinical oncology tests performed in Genomics and increased data deliveries in our Data and Services product line.

Genomics

The increase in Genomics revenue for the year ended December 31, 2024, compared to the same period in 2023, was primarily due to an increase in the number of oncology NGS tests, which increased from approximately 218,700 tests for the year ended December 31, 2023 to approximately 270,800 tests for the year ended December 31, 2024. Additionally, there was an increase in average revenue per NGS oncology test, which increased from approximately \$1,450 per test for the year ended December 31, 2023 to approximately \$1,510 per test for the year ended December 31, 2024. The increase in average revenue per test was driven primarily by increased Medicare reimbursement rates. The increase in the number of oncology NGS tests and average revenue per NGS oncology test resulted in a \$91.8 million increase in Genomics revenue.

Data and Services

The increase in Data and services revenue for the year ended December 31, 2024, compared to the same period in 2023, was driven primarily by \$52.9 million from increased demand for our Insights products. Across all Data and services products, the increase in revenue in the year ended December 31, 2024 is primarily attributable to continued growth from within our existing customer base, as well as adoption of our services by new customers that did not purchase services in the

year ended December 31, 2023. Additionally, there was a \$16.3 million increase in Insights products due to the reversal of warrant contract asset amortization related to the termination of the warrant with AstraZeneca.

Cost and Operating Expenses

Cost of Revenues

	Year Ended December 31,			
	2024	2023	\$ Change	% Change
	(in thousands, except percentages)			
Cost of revenues, genomics	\$ 243,467	\$ 189,165	\$ 54,302	29%
Cost of revenues, data and services	68,818	56,482	12,336	22%
Total	\$ 312,285	\$ 245,647	\$ 66,638	27%

The increase in Cost of revenues for the year ended December 31, 2024, compared to the same period in 2023, was primarily due to an increase of \$24.0 million in material and service costs, \$22.1 million of stock-based compensation expense related to RSUs for which the performance-based vesting condition was satisfied in connection with our IPO, \$6.0 million in personnel costs, and \$4.2 million in cloud expenses.

Cost of Revenues, Genomics

The increase in Cost of revenues, Genomics for the year ended December 31, 2024, compared to the same period in 2023, was primarily due to an increase of \$24.0 million in material and service costs, \$13.6 million of stock-based compensation expense related to RSUs for which the performance-based vesting condition was satisfied in connection with our IPO, \$7.6 million in personnel costs, \$4.2 million in royalty licensing fees, and \$1.9 million in cloud expenses.

Cost of Revenues, Data and Services

The increase in Cost of revenues, Data and services for the year ended December 31, 2024, compared to the same period in 2023, was primarily due to an increase of \$8.5 million of stock-based compensation expense related to RSUs for which the performance-based vesting condition was satisfied in connection with our IPO, as well as an increase of \$2.3 million in cloud expenses.

Technology Research and Development

	Year Ended December 31,			
	2024	2023	\$ Change	% Change
	(in thousands, except percentages)			
Technology research and development	\$ 167,519	\$ 95,155	\$ 72,364	76%

The increase in Technology research and development expenses for the year ended December 31, 2024, compared to the same period in 2023, was primarily due to an increase of \$58.5 million of stock-based compensation expenses related to RSUs for which the performance-based vesting condition was satisfied in connection with our IPO, \$11.1 million in personnel-related costs associated with the investment in our cloud infrastructure and new lines of business, and \$2.7 million in taxes related to the settlement of RSUs.

Research and Development

	Year Ended December 31,			
	2024	2023	\$ Change	% Change
	(in thousands, except percentages)			
Research and development	\$ 149,325	\$ 90,343	\$ 58,982	65%

The increase in Research and development expenses for the year ended December 31, 2024, compared to the same period in 2023, was primarily due to an increase of \$47.6 million of stock-based compensation expenses related to RSUs for which the performance-based vesting condition was satisfied in connection with our IPO, \$5.7 million in personnel-related costs for employees in our research and development group, \$1.8 million in third party sequencing fees, and \$1.8 million in validation and regulatory fees.

Selling, General and Administrative

	Year Ended December 31,		\$ Change	% Change
	2024	2023		
	(in thousands, except percentages)			
Selling, general and administrative	\$ 755,351	\$ 296,760	\$ 458,591	155%

The increase in Selling, general and administrative expenses for the year ended December 31, 2024, compared to the same period in 2023, was primarily due to an increase of \$405.9 million of stock-based compensation expenses related to RSUs for which the performance-based vesting condition was satisfied in connection with our IPO, \$26.7 million in personnel-related costs, \$8.4 million in taxes related to the settlement of RSUs, \$7.0 million in legal costs, \$6.6 million in software and tools costs, and \$3.1 million in cloud storage costs.

Interest Income

	Year Ended December 31,		\$ Change	% Change
	2024	2023		
	(in thousands, except percentages)			
Interest income	\$ 11,084	\$ 7,601	\$ 3,483	46%

The increase in Interest income for the year ended December 31, 2024, compared to the same period in 2023, increased primarily due to higher cash on hand as of December 31, 2024 compared to December 31, 2023.

Interest Expense

	Year Ended December 31,		\$ Change	% Change
	2024	2023		
	(in thousands, except percentages)			
Interest expense	\$ (53,653)	\$ (46,869)	\$ (6,784)	14%

The increase in Interest expense for the year ended December 31, 2024, compared to the same period in 2023, was primarily driven by compounding interest on our Amended Note and additional debt entered into under our Term Loan Facility in April and October 2023.

Other Income, net

	Year Ended December 31,		\$ Change	% Change
	2024	2023		
	(in thousands, except percentages)			
Other income, net	\$ 32,336	\$ 21,822	\$ 10,514	48%

The change in Other income, net for the year ended December 31, 2024, compared to the same period in 2023, was primarily driven by a \$50.4 million increase in expense related to the change in fair value of our warrant liability and a \$2.3 million expense for the G-4 Special Payment (as defined in Note 10 to our consolidated financial statements included elsewhere in this Annual Report on Form 10-K). The increase in expense was offset by \$39.1 million in income related to termination of the warrant with AstraZeneca, \$14.2 increase in income due to the change in fair value of our warrant asset, and \$8.0 in income from the IP License Agreement with SB Tempus, and \$2.3 million in income related to gains on marketable equity securities.

Provision for income taxes

	Year Ended December 31,		\$ Change	% Change
	2024	2023		
	(in thousands, except percentages)			
Provision for income taxes	\$ (266)	\$ (288)	\$ 22	-8%

The decrease in provision for income taxes for the year ended December 31, 2024, compared to the same period in 2023, was not material.

Losses from Equity Method Investments

	Year Ended December 31,		\$ Change	% Change
	2024	2023		
	(in thousands, except percentages)			
Losses from equity method investments	\$ (4,228)	\$ (301)	\$ (3,927)	1305%

The increase in losses from equity method investments for the year ended December 31, 2024, compared to the same period in 2023, was due to the losses from the joint venture we entered into in July 2024 (see Note 6 to our consolidated financial statements included elsewhere in this Annual Report on Form 10-K).

Non-GAAP Financial Measure

To supplement our consolidated financial statements prepared and presented in accordance with accounting principles generally accepted in the United States of America, or GAAP, we use adjusted EBITDA to facilitate analysis of our financial and business trends and for internal planning and forecasting purposes.

EBITDA is defined as earnings before interest, taxes, depreciation and amortization. We define adjusted EBITDA as net income (loss), adjusted to exclude (i) interest income, (ii) interest expense, (iii) depreciation and amortization, (iv) provision for income taxes, (v) losses on equity method investments, (vi) changes in fair value of our warrant liability, warrant asset, marketable equity securities, contingent consideration liabilities and indemnity-related holdback liabilities, (vii) stock-based compensation expense, (viii) employer payroll tax related to stock-based compensation expense, (ix) the G-4 Special Payment, (x) amortization of deferred other income from our IP License Agreement with SB Tempus, (xi) the settlement of certain historical and potential future disputes, and (xii) acquisition-related expenses. We use adjusted EBITDA in conjunction with net income or loss, its corresponding GAAP measure, as a performance measure to assess our operating performance and operating leverage in our business. The above items are excluded from our adjusted EBITDA measure because these items are non-cash in nature, or because the amount and timing of these items is unpredictable, or they are not driven by core results of operations, thereby rendering comparisons with prior periods and competitors less meaningful. We believe adjusted EBITDA provides useful information to investors and others in understanding and evaluating our results of operations, as well as provides a useful measure for period-to-period comparisons of our business performance. Moreover, adjusted EBITDA is a key measurement used by our management internally to make operating decisions, including those related to analyzing operating expenses, evaluating performance, and performing strategic planning and annual budgeting.

Adjusted EBITDA has limitations as a financial measure, should be considered as supplemental in nature, and is not meant as a substitute for, or superior to, the related financial information prepared in accordance with GAAP. Some of these limitations are that adjusted EBITDA:

- does not reflect interest income which increases cash available to us;
- excludes depreciation and amortization expense, and although these are non-cash expenses, the asset being depreciated may have to be replaced in the future, increasing our cash requirements;
- does not reflect provision for or benefit from income taxes that reduces cash available to us; and
- excludes change in fair value of warrant liabilities, contingent consideration and warrant asset.

Because of these limitations, we consider, and you should consider, adjusted EBITDA alongside other financial performance measures, including net loss and our other GAAP results. A reconciliation of our adjusted EBITDA to net loss, the most directly comparable financial measure stated in accordance with GAAP, is provided below. Investors are encouraged to review the related GAAP financial measures and the reconciliation of the non-GAAP financial measure to their most directly comparable GAAP financial measure.

The following table summarizes our adjusted EBITDA, along with net loss, the most directly comparable GAAP measure, for each period presented below:

	Year Ended December 31,	
	2024	2023
	(in thousands)	
Net loss	\$ (705,809)	\$ (214,118)
Interest income	(11,084)	(7,601)
Interest expense	53,653	46,869
Depreciation	26,356	21,279
Amortization	10,889	11,770
Provision for income taxes	266	288
EBITDA	\$ (625,729)	\$ (141,513)
Losses on equity method investments	4,228	301
Fair value changes ⁽¹⁾	(27,868)	(22,307)
Stock-based compensation expense	534,138	—
Employer payroll tax related to stock-based compensation	13,543	—
G-4 Special Payment	2,250	—
Amortization of technology license	(7,977)	—
Settlement costs ⁽²⁾	—	8,625
Acquisition related expenses ⁽³⁾	2,708	672
Adjusted EBITDA	<u>\$ (104,707)</u>	<u>\$ (154,222)</u>

⁽¹⁾ Fair value changes include gains and losses related to quarterly fair value adjustments of our warrant liability, warrant asset, marketable equity securities, contingent consideration liabilities, and indemnity-related holdback liabilities.

⁽²⁾ Settlement costs for the year ended December 31, 2023 include \$0.2 million paid to settle a 2019 payment dispute and \$8.5 million in costs accrued related to potential future settlements.

⁽³⁾ Acquisition related expenses consist of legal and diligence costs incurred for the acquisition of Ambry during the year ended December 31, 2024, and for the acquisitions of Mpirik, Inc. and SEngine Precision Medicine LLC during the year ended December 31, 2023.

Liquidity and Capital Resources

We have incurred significant losses and negative cash flows from operations since our inception, and as of December 31, 2024, we had an accumulated deficit of \$2.2 billion.

We expect to incur additional operating losses in the near future and our operating expenses will increase as we continue to invest and develop new offerings, expand our sales organization, and increase our marketing efforts to drive market adoption of our tests. As demand for our tests continues to increase from physicians and biopharmaceutical companies, we anticipate that our capital expenditure requirements could also increase if we require additional laboratory capacity.

We have funded our operations to date principally from the sale of stock, convertible debt, term debt, and sales of our products. As of December 31, 2024, we had cash, cash equivalents and restricted cash of \$341.8 million. In April 2024, we sold an aggregate of 3,489,981 shares of our Series G-5 convertible preferred stock at a price per share of \$57.3069, for an aggregate purchase price of approximately \$200.0 million in a private placement to an accredited investor. In June 2024, we completed our IPO, which resulted in net proceeds of \$382.0 million after deducting underwriting discounts and commissions of \$28.7 million.

Based on our current business plan, we believe our current cash and cash equivalents, marketable equity securities and anticipated cash flows from operations, will be sufficient to meet our anticipated cash requirements for more than twelve months from the date of this Annual Report on Form 10-K. We may raise additional capital to expand our business, to pursue strategic investments, to take advantage of financing opportunities or for other reasons. As we grow our revenue, our accounts receivable and inventory balances will increase. Any increase in accounts receivable and inventory may not be completely offset by increases in accounts payable and accrued expenses, which could result in greater working capital requirements.

If our available cash and cash equivalents and anticipated cash flows from operations are insufficient to satisfy our liquidity requirements because of lower demand for our products as a result of lower than currently expected rates of reimbursement from our customers or other risks described elsewhere in this Annual Report on Form 10-K, we may seek to sell additional common or preferred equity or convertible debt securities, enter into a credit facility or another form of third-party funding or seek other debt financing. The sale of equity and convertible debt securities, or exercise of warrants may result in dilution to our stockholders and, in the case of preferred equity securities or convertible debt, those securities could provide for rights, preferences or privileges senior to those of our common stock. The terms of debt securities issued or borrowings pursuant to a credit agreement could impose significant restrictions on our operations. If we raise funds through collaborations and licensing arrangements, we might be required to relinquish significant rights to our platform technologies or products or grant licenses on terms that are not favorable to us. Additional capital may not be available to us on reasonable terms, or at all. The failure to obtain any required future financing may require us to reduce or eliminate certain existing operations.

Credit Facilities

On September 22, 2022, we entered into a Credit Agreement, or the Credit Agreement, with Ares for a senior secured loan, or Term Loan Facility, in the amount of \$175 million, less original issue discount of \$4.4 million and deferred financing fees of \$2.6 million. On April 25, 2023, we entered into an amendment to the Credit Agreement, which increased the aggregate principal amount of the Term Loan Facility by an additional \$50 million, less original issue discount of \$1.3 million, and increased the interest rate on the Term Loan Facility by 25 basis points. On October 11, 2023, we entered into a second amendment to the Credit Agreement, which increased the aggregate principal amount of the Term Loan Facility by an additional \$35 million, less original issue discount of \$0.9 million. On February 3, 2025, in connection with the closing of the Acquisition, we entered into a third amendment to the Credit Agreement providing for the Additional Term Loan Facility of \$200.0 million (together with the Term Loan Facility, the “Term Loan Facilities” and the Loans issued thereunder, the “Term Loans”) and the Revolving Credit Facility of \$100.0 million (and the Loans thereunder, the Revolving Loans).

The Additional Term Loan Facility and the Revolving Credit Facility mature on February 3, 2030. The Term Loan Facility matures in September 2027.

Through December 31, 2025, interest on the Term Loans accrues at a per annum rate as follows: (i) for any interest period for which we elect to pay interest in cash, the cash interest rate for Base Rate and Term SOFR borrowings will be the Base Rate *plus* 6.25% and Term SOFR *plus* 7.25%, respectively, and (ii) for any interest period for which we elect to pay interest in kind, the cash interest rate for Base Rate and Term SOFR borrowings will be the Base Rate *plus* 4% and Term SOFR *plus* 5%, respectively, and the paid-in-kind interest rate will be 3.25%. From and after January 1, 2026, interest on the Term Loans accrues at a per annum rate as follows: (i) for any interest period for which we elect to pay interest in cash, the cash interest rate for Base Rate and Term SOFR borrowings will be the Base Rate *plus* a margin ranging from 5.75% to 6.75% and Term SOFR *plus* a margin ranging from 6.75% to 7.75%, respectively, and (ii) for any interest period for which we elect to pay interest in kind, the cash interest rate for Base Rate and Term SOFR borrowings will be the Base Rate *plus* a margin of 4% or 4.5% and Term SOFR *plus* a margin of 5% or 5.5%, respectively, and the paid-in-kind interest rate will be 3.25%. The applicable margin for any interest period for which we elect to pay interest in cash will be based on our consolidated first lien leverage ratio and whether the Company has satisfied certain junior capital raising requirements. The applicable margin for any interest period for which we elect to pay interest in kind will be based on whether we have satisfied certain junior capital raising requirements.

Interest on the Revolving Loans accrues at a per annum rate equal to either, the Base Rate *plus* 2.75% or Term SOFR *plus* 3.75%. At all times prior to the termination of the Revolving Commitments, to the extent that, on any date, the outstanding aggregate principal amount of Revolving Loans is less than the greater of (x) 50.0% of the Revolving Commitments and (y) \$50.0 million, the amount of interest payable on account of the Revolving Loans shall be equal to the amount of interest that would be payable had the outstanding principal amount of the Revolving Loans equaled the greater of (x) 50.0% of the Revolving Commitments and (y) \$50.0 million (the Minimum Revolving Interest Amount). A commitment fee will accrue on the unused amount of the Revolving Commitments at a per annum rate of 0.50%; provided, however, that no such fee shall accrue to the extent we are being charged the Minimum Revolving Interest Amount.

Our obligations under the Credit Agreement are guaranteed by certain of its subsidiaries and secured by substantially all of our and our subsidiaries' assets. We have the right at any time and from time to time to prepay any of the Term Loans or Revolving Loans in whole or in part, subject, with respect to the Term Loans, to certain prepayment fees.

The Credit Agreement contains customary representations, warranties, and covenants, including but not limited to, restrictions on our and our subsidiaries' ability to incur additional indebtedness, dispose of its assets, incur liens, make investments, and pay dividends or other distributions, in each case subject to specified exceptions. We are required to maintain a minimum liquidity of at least \$25 million and maintain specified amounts of consolidated revenues for the trailing twelve month period ending on the last day of each fiscal quarter. Minimum consolidated revenues shall equal either \$1.0 billion for the immediately trailing twelve month period or \$1.0 billion on a pro forma basis and for the fiscal quarters ending March 31, 2025 through December 31, 2025, and shall equal \$1.1 billion for the fiscal quarters ending March 31, 2026 through December 31, 2026. The Credit Agreement also contains a maximum first lien leverage from and after the fiscal quarter ending March 31, 2027.

We were in compliance with the covenants of the Credit Agreement as of December 31, 2024.

Convertible Promissory Note

On June 22, 2020, in connection with our entry into an agreement for use of Google LLC's, or Google's, Google Cloud Platform, we issued Google a convertible promissory note, or the Note, in the original principal amount of \$330.0 million. On November 19, 2020, in connection with our Series G-2 convertible preferred stock financing, we issued Google \$80 million of our Series G-2 preferred stock, at a 10% discount to the purchase price per share in such financing, in partial satisfaction of the outstanding principal amount under the Note, and we amended and restated the terms of the Note.

The amended and restated Note, or the Amended Note, has a principal amount of \$250.0 million, and bears interest at the rate set forth therein. The principal amount is automatically reduced each year based on a formula taking into account the aggregate value of the Google Cloud Platform services used by us. We account for the principal reductions as an offset to our cloud and compute spend within selling, general and administrative expense in our consolidated statements of operations and comprehensive loss. The outstanding principal and accrued interest under the Amended Note, or the Outstanding Amount, is due and payable on the earlier of (1) March 22, 2026, which is the maturity date of the Amended Note, (2) upon the occurrence and during the continuance of an event of default, and (3) upon the occurrence of an acceleration event, which includes any termination by us of our Google Cloud Platform agreement. We generally may not prepay the Outstanding Amount, except that we may, at our option, prepay the Outstanding Amount in an amount such that the principal amount remaining outstanding after such repayment is \$150.0 million.

If the Amended Note is outstanding at the maturity date, Google may, at its option, convert the then outstanding principal amount and interest accrued under the Amended Note into a number of shares of our Class A common stock equal to the quotient obtained by dividing (1) the Outstanding Amount on the maturity date, by (2) the average of the last trading price on each trading day during the twenty day period ending immediately prior to the maturity date.

On February 22, 2025, we amended our Amended Note with Google, under which the maturity date of the Amended Note was extended to December 31, 2030. In addition, the amendment provides us the option upon maturity to repay 50% of the outstanding principal and accrued interest balance in shares of our Class A common stock.

Cash Flows

The following table summarizes our cash flows for the periods presented:

	Year ended December 31,	
	2024	2023
	(in thousands)	
Net cash used in operating activities	\$ (189,045)	\$ (214,339)
Net cash used in investing activities	\$ (130,392)	\$ (40,313)
Net cash provided by financing activities	\$ 494,329	\$ 117,547

Operating Activities

Cash used in operating activities during the year ended December 31, 2024 was \$189.0 million, which resulted from a net loss of \$705.8 million and a net change in our operating assets and liabilities of \$37.8 million, offset by non-cash charges of \$554.6 million. Non-cash charges primarily consisted of \$534.1 million of stock-based compensation, a \$42.4 million increase in the fair value of the warrant liability, and \$37.2 million of depreciation and amortization, offset by a gain of \$39.1

million on the termination of our warrant with AstraZeneca, a change in the fair value of our warrant asset of \$18.3 million, and the reversal of warrant contract asset amortization of \$16.3 million. The net change in our operating assets and liabilities was primarily the result of a \$61.0 million increase in accounts receivable due to increased sales and timing of customer payments, a decrease in accounts payable of \$23.9 million, a decrease of \$20.9 million in deferred revenue, and an increase in prepaid expenses and other current assets of \$13.7 million, offset by a \$50.5 million increase in accrued expenses and other, primarily due to increased cloud spend and payroll taxes from RSU settlements, and a \$39.9 million increase in deferred other income related to the IP License Agreement with SB Tempus.

Cash used in operating activities during the year ended December 31, 2023 was \$214.3 million, which resulted from a net loss of \$214.1 million and a net change in our operating assets and liabilities of \$37.8 million, offset by non-cash charges of \$37.6 million. Non-cash charges primarily consisted of \$33.0 million of depreciation and amortization, \$6.8 million of non-cash operating lease costs, amortization of the warrant contract asset of \$5.2 million, \$7.4 million of impairment of intangible assets, and a decrease in the fair value of the warrant liability of \$8.0 million. The net change in our operating assets and liabilities was primarily the result of a \$7.3 million increase in accounts receivable, and a \$26.4 million decrease in deferred revenue.

Investing Activities

Cash used in investing activities during the year ended December 31, 2024 was \$130.4 million, which was the result of a \$95.2 million investment in a joint venture in July 2024 (see Note 6 to our consolidated financial statements included elsewhere in this Annual Report on Form 10-K), \$36.2 million in purchases of marketable equity securities, and purchases of property and equipment of \$22.1 million, offset by proceeds from the sale of marketable equity securities of \$23.1 million.

Cash used in investing activities during the year ended December 31, 2023 was \$40.3 million, which was the result of purchases of property and equipment of \$34.6 million, which related primarily to the expansion of our Chicago office for additional laboratory space, and \$5.7 million related to cash paid for business combinations.

Financing Activities

Cash provided by financing activities during the year ended December 31, 2024 was \$494.3 million, which was the result of proceeds from the issuance of common stock in connection with our IPO, net of underwriting discounts and commissions of \$382.0 million, and the issuance of Series G-5 Preferred Stock of \$199.8 million, offset by \$8.8 million of payments of deferred offering costs, \$5.6 million of dividend payments, and \$69.9 million of taxes paid related to the net settlement of a portion of the RSUs outstanding as of June 1, 2024 for which the service-based vesting condition was satisfied before June 14, 2024 and for which the performance-based vesting condition was satisfied in connection with the IPO, or the RSU Net Settlement.

Cash provided by financing activities during the year ended December 31, 2023 was \$117.5 million, which was primarily due to net proceeds of \$82.9 million from the Term Loan Facility with Ares and \$44.9 million in net proceeds from the issuance of convertible preferred stock, offset by \$5.6 million of dividend payments and \$3.6 million in purchase of treasury stock.

Contractual Obligations and Commitments

Our contractual commitments will have an impact on our future liquidity. These commitments include future payments on non-cancellable leases, purchase obligations related to data licenses and cloud computing services, and future payments on our convertible promissory note. Where applicable, we calculate our obligation based on termination fees that can be paid to exit the contract. The data license agreements include committed payments for access to certain data and additional payments contingent on the commercialization of such data. See Note 7, Note 8, and Note 12 to the consolidated financial statements included elsewhere in this Annual Report on Form 10-K for our contractual commitments.

Off-Balance Sheet Arrangements

We did not have during the period presented, and we do not currently have, any off-balance sheet financing arrangements or any relationships with unconsolidated entities or financial partnerships, including entities sometimes referred to as structured finance or special purpose entities, that were established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes.

Critical Accounting Policies and Estimates

We have prepared our consolidated financial statements in accordance with generally accepted accounting principles in the United States, or GAAP. Our preparation of these consolidated financial statements requires us to make estimates, assumptions and judgments that affect the reported amounts of assets, liabilities, expenses and related disclosures at the date of the consolidated financial statements, as well as revenue and expenses recorded during the reporting periods. We evaluate our estimates and judgments on an ongoing basis. We base our estimates on historical experience and on various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results could therefore differ materially from these estimates under different assumptions or conditions.

While our significant accounting policies are described in more detail in Note 2 to our audited consolidated financial statements included elsewhere in this Annual Report on Form 10-K, we believe the following accounting policies to be critical to the judgments and estimates used in the preparation of our financial statements.

Revenue Recognition

We derive Genomics revenue from selling lab services to physicians, academic research institutions, and other parties. We also derive Data and services revenue from the commercialization of data generated in the lab through the licensing of de-identified datasets to third parties and from matching patients to clinical trials enrolled in its clinical trial network and related services. The majority of our revenue is generated in North America.

We account for our revenue in accordance with ASC Topic 606, *Revenue From Contracts With Customers*. We commence revenue recognition when control of these products is transferred to customers in an amount that reflects the consideration we expect to be entitled to in exchange for such products. This principle is achieved by applying the following five-step approach: (i) we account for a contract when it has approval and commitment from both parties, (ii) the rights of the parties are identified, (iii) payment terms are identified, (iv) the contract has commercial substance and (v) collectability of consideration is probable. Revenue and any contract assets are not recognized until such time that the required conditions are met.

Genomics

For direct bill orders billed to research institutions, pharmaceutical companies, or other third parties, we determine the transaction prices based on established contractual rates with the customer, net of any applicable discounts. Payment is typically due between 30 and 60 days following the date of invoice.

For clinical orders billed to Medicare, Medicaid, and commercial insurance, we determine the transaction price by reducing the standard charge by the estimated effects of any variable consideration, such as contractual allowance and implicit price concessions. We estimate contractual allowances and implicit price concessions based on historical collections in relation to established rates, as well as known current or anticipated reimbursement trends not reflected in the historical data. Estimates are inclusive of the consideration to which we will be entitled at an amount for which it is probable that a reversal of cumulative consideration will not occur. We monitor the estimated amount to be collected at each reporting period based on actual cash collections in order to assess whether a revision to the estimate is required. Payment is typically due after the claim has been processed by the payor, generally 30-120 days from date of service. While management believes that the estimates are accurate, actual results could differ, and the potential impact on the financial statements could be significant.

Stock-Based Compensation

We recognize compensation expense for equity awards based on the grant-date fair value on a straight-line basis over the remaining requisite service period for the award. For those awards with a market condition, we utilize a Monte Carlo simulation model to estimate the fair value of the restricted stock units.

We issue RSUs to certain of our employees. The general terms of the RSUs issued under the 2015 Stock Plan, or our 2015 Plan require both a service and performance condition to be satisfied prior to vesting. RSUs issued under our 2024 Plan are subject only to a service condition. The service condition is satisfied upon the participant's completion of a required period of continuous service from the vesting start date. The performance condition applicable to our 2015 Plan was satisfied upon a liquidity event, which occurred when we completed our IPO in June 2024, and resulted in recognition of stock-based compensation expense of \$534.1 million during the year ended December 31, 2024.

Common Stock Valuations

Prior to our IPO, our common stock was not publicly traded. As such, we were required to estimate the fair value of our common stock. Our board of directors considered numerous objective and subjective factors to determine the fair value of our common stock as awards were approved, including utilizing third-party valuations to assist with the determination of the estimated fair-market value and common stock price. Given the absence of a public trading market for our common stock, the valuations of common stock were determined in accordance with the guidance provided by the American Institute of Certified Public Accountants Practice Aid, Valuation of Privately-Held-Company Equity Securities Issued as Compensation, and our board of directors exercised reasonable judgment and considered numerous and subjective factors to determine the best estimate of fair value of our common stock, including the following factors:

- contemporaneous valuations performed by independent third-party specialists;
- the prices, rights, preferences and privileges of our redeemable convertible preferred stock relative to those of our common stock;
- the prices of common or preferred stock sold to third-party investors by us and in secondary transactions or repurchased by us in arms-length transactions;
- lack of marketability of our common stock;
- our actual operating and financial performance;
- current business conditions and projections;
- our stage of development;
- likelihood of achieving a liquidity event, such as an initial public offering or a merger or acquisition of our company given prevailing market conditions;
- the market performance of comparable publicly traded companies; and
- the U.S. and global capital market conditions.

In valuing our common stock, management determined the equity value of our business using various valuation methods including combinations of income and market approaches. The income approach estimates value based on the expectation of future cash flows that a company will generate. These future cash flows were discounted to their present values using a discount rate derived from an analysis of the cost of capital of comparable publicly traded companies in our industry or similar business operations as of each valuation date and adjusted to reflect the risks inherent in our cash flows.

For each valuation, the equity value determined by the income and market approaches was then allocated to the common stock. We performed this allocation using the option pricing method, or OPM, which treats the securities comprising our capital structure as call options with exercise prices based on the liquidation preferences of our various series of preferred stock and the exercise prices of our options and warrants. Following the formal approval by our board of directors of a plan for our company to pursue an initial public offering, from the second quarter of 2021 through the first quarter of 2022, we used a probability-weighted expected return method, or PWERM, which involves the estimation of multiple future potential outcomes, and estimates of the probability of each potential outcome. From the second quarter of 2022 through the second quarter of 2023, in response to volatile market conditions and the resulting uncertainty around the timing of a liquidity event, we changed our valuation methodology back to an OPM. Beginning in the third quarter of 2023, as a result of improving market conditions, we switched back to a PWERM. The per share value of our common stock is ultimately based upon probability-weighted per share values resulting from the various future scenarios, which include an initial public offering, merger or sale or continued operation as a private company.

Application of these approaches involves the use of estimates, judgments and assumptions that are highly complex and subjective, such as those regarding our expected future revenue, expenses, and future cash flows, discount rates, market multiples, the selection of comparable companies, and the probability of possible future events. Changes in any or all of these estimates and assumptions or the relationships between those assumptions affect our valuations as of each valuation date and may have a material impact on the valuation of our common stock.

For valuations after the completion of our IPO, management will determine the fair value of each share of underlying common stock based on the closing price of our common stock as reported on the date of grant. Future expense amounts for any particular period could be affected by changes in our assumptions or market conditions.

Recent Accounting Pronouncements

See the section titled “Summary of Significant Accounting Policies” in Note 2 to our consolidated financial statements included elsewhere in this Annual Report on Form 10-K for more information.

Emerging Growth Company Status

We are an “emerging growth company” as defined in Section 2(a) of the Securities Act of 1933, as amended, or the Securities Act, as modified by the Jumpstart Our Business Startups Act of 2012, or the JOBS Act, and we may take advantage of certain exemptions from various reporting requirements that are applicable to other public companies that are not emerging growth companies including, but not limited to, not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements, and exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved.

Further, Section 102(b)(1) of the JOBS Act exempts emerging growth companies from being required to comply with new or revised financial accounting standards until private companies (that is, those that have not had a Securities Act registration statement declared effective or do not have a class of securities registered under the Securities Exchange Act of 1934, as amended) are required to comply with the new or revised financial accounting standards. The JOBS Act provides that a company can elect to opt out of the extended transition period and comply with the requirements that apply to non-emerging growth companies but any such election to opt out is irrevocable. We have elected not to opt out of such extended transition period which means that when a standard is issued or revised and it has different application dates for public or private companies, our company, as an emerging growth company, can adopt the new or revised standard at the time private companies adopt the new or revised standard. This may make comparison of our consolidated financial statements with another public company which is neither an emerging growth company nor an emerging growth company which has opted out of using the extended transition period difficult or impossible because of the potential differences in accounting standards used.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk.

We are exposed to market risk in the ordinary course of our business. Market risk represents the risk of loss that may impact our financial position due to adverse changes in financial market prices and rates. Our market risk exposure is primarily the result of fluctuations in interest rates and foreign currency exchange rates and inflation risk.

Interest Rate Risk

We are exposed to market risk for changes in interest rates related primarily to our cash, cash equivalents and restricted cash, and our indebtedness. As of December 31, 2024, we had cash, cash equivalents and restricted cash of \$341.8 million held primarily in cash deposits and money market funds. As of December 31, 2024, we had \$272.4 million outstanding under our Term Loan Facilities, which are subject to quarterly interest payments. A hypothetical 100 basis point increase or decrease in interest rates would not be material to our financial condition or results of operations.

Foreign Currency Risk

The majority of our revenue is generated in the United States. Through December 31, 2024, we have generated an insignificant amount of revenues denominated in foreign currencies. As we expand our presence in the international market, our results of operations and cash flows are expected to increasingly be subject to fluctuations due to changes in foreign currency exchange rates and may be adversely affected in the future due to these related changes. As of December 31, 2024 the effect of a hypothetical 10% change in foreign currency exchange rates would not be material to our financial condition or results of operations. To date, we have not entered into any hedging arrangements with respect to foreign currency risk. As our international operations grow, we will continue to reassess our approach to manage our risk relating to fluctuations in currency rates.

Inflation Risk

We are also exposed to inflation risk and inflationary factors, such as increases in raw material and overhead costs, which could impair our operating results. Although we do not believe that inflation has had a material impact on our financial position or results of operations to date, a high rate of inflation in the future may have an adverse effect on our ability to maintain current levels of gross margin and operating expenses as a percentage of revenue.

Item 8. Financial Statements and Supplementary Data.

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

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Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of Tempus AI, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Tempus AI, Inc. and its subsidiaries (the "Company") as of December 31, 2024 and 2023, and the related consolidated statements of operations and comprehensive loss, of redeemable preferred stock, common stock and stockholders' equity (deficit) and of cash flows for each of the three years in the period ended December 31, 2024, including 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 financial position of the Company as of December 31, 2024 and 2023, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2024 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 audits of these consolidated financial statements in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud.

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.

/s/ PricewaterhouseCoopers LLP
Chicago, Illinois
February 24, 2025

We have served as the Company's auditor since 2019.

Tempus AI, Inc.
CONSOLIDATED BALANCE SHEETS
(in thousands, except share and per share amounts)

	December 31, 2024	December 31, 2023
Assets		
Current Assets		
Cash and cash equivalents	\$ 340,954	\$ 165,767
Accounts receivable, net of allowances of \$1,141 and \$1,115 at December 31, 2024 and December 31, 2023, respectively	154,819	94,462
Inventory	38,386	28,845
Warrant asset	—	5,070
Prepaid expenses and other current assets	26,135	17,295
Marketable equity securities	107,309	31,807
Deferred offering costs	—	7,085
Total current assets	\$ 667,603	\$ 350,331
Property and equipment, net	58,056	61,681
Goodwill	73,343	73,354
Warrant asset, less current portion	—	4,930
Intangible assets, net	11,716	21,916
Investments and other assets	8,305	8,971
Investment in joint venture	91,450	—
Warrant contract asset, less current portion	—	21,499
Operating lease right-of-use assets	14,762	20,530
Restricted cash	881	840
Total Assets	\$ 926,116	\$ 564,052
Liabilities, Convertible redeemable preferred stock, and Stockholders' equity (deficit)		
Current Liabilities		
Accounts payable	53,804	54,421
Accrued expenses	130,407	82,517
Deferred revenue	75,981	64,860
Deferred other income	15,955	—
Other current liabilities	6,964	8,213
Operating lease liabilities	6,459	6,437
Accrued data licensing fees	1,500	6,382
Accrued dividends	—	9,797
Total current liabilities	\$ 291,070	\$ 232,627
Operating lease liabilities, less current portion	26,199	32,040
Convertible promissory note	168,192	193,124
Warrant liability	—	34,500
Other long-term liabilities	15,980	19,751
Interest payable	70,450	55,321
Long-term debt, net	267,244	256,541
Deferred other income, less current portion	23,932	—
Deferred revenue, less current portion	6,710	16,768
Total Liabilities	\$ 869,777	\$ 840,672

The accompanying notes are an integral part of these consolidated financial statements.

Commitments and contingencies (Note 7)

Convertible redeemable preferred stock, \$0.0001 par value, no and 69,803,765 shares authorized at December 31, 2024 and December 31, 2023, respectively; no and 63,525,953 shares issued and outstanding at December 31, 2024 and December 31, 2023, respectively; aggregate liquidation preference of \$0 and \$1,130,429 at December 31, 2024 and December 31, 2023, respectively

— 1,105,543

Stockholders' equity (deficit)

Class A Voting Common Stock, \$0.0001 par value, 1,000,000,000 and 200,228,024 shares authorized at December 31, 2024 and December 31, 2023, respectively; 157,076,972 and 58,367,961 shares issued and outstanding at December 31, 2024 and December 31, 2023, respectively

16 \$ 6

Class B Voting Common Stock, \$0.0001 par value, 5,500,000 and 5,374,899 shares authorized at December 31, 2024 and December 31, 2023, respectively; 5,043,789 and no shares issued and outstanding at December 31, 2024 and December 31, 2023, respectively

1 —

Non-voting Common Stock, \$0.0001 par value, no and 66,946,627 shares authorized at December 31, 2024 and December 31, 2023, respectively; no shares issued and outstanding at December 31, 2024, and 5,205,802 shares issued and 5,060,336 shares outstanding at December 31, 2023

— 0

Treasury Stock, 145,466 shares at December 31, 2024 and December 31, 2023, at cost

(3,602) (3,602)

Additional Paid-In Capital

2,210,664 18,345

Accumulated Other Comprehensive Income

94 5

Accumulated deficit

(2,150,834) (1,396,917)

Total Stockholders' equity (deficit)

\$ 56,339 \$ (1,382,163)

Total Liabilities, Convertible redeemable preferred stock, and Stockholders' equity (deficit)

\$ 926,116 \$ 564,052

The accompanying notes are an integral part of these consolidated financial statements.

Tempus AI, Inc.
CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS
(in thousands, except per share amounts)

	Year Ended December 31,		
	2024	2023	2022
Net revenue			
Genomics	\$ 451,749	\$ 363,022	\$ 197,984
Data and services	241,649	168,800	122,684
Total net revenue	\$ 693,398	\$ 531,822	\$ 320,668
Cost and operating expenses			
Cost of revenues, genomics	243,467	189,165	150,255
Cost of revenues, data and services	68,818	56,482	40,227
Technology research and development	167,519	95,155	79,093
Research and development	149,325	90,343	83,158
Selling, general and administrative	755,351	296,760	233,377
Total cost and operating expenses	1,384,480	727,905	586,110
Loss from operations	\$ (691,082)	\$ (196,083)	\$ (265,442)
Interest income	11,084	7,601	3,032
Interest expense	(53,653)	(46,869)	(21,894)
Other income (expense), net	32,336	21,822	(4,846)
Loss before provision for income taxes	\$ (701,315)	\$ (213,529)	\$ (289,150)
Provision for income taxes	(266)	(288)	(66)
Losses from equity method investments	(4,228)	(301)	(595)
Net Loss	\$ (705,809)	\$ (214,118)	\$ (289,811)
Accretion of convertible preferred stock to redemption value	—	(4,338)	(301)
Dividends on Series A, B, B-1, B-2, C, D, E, F, G, G-3, and G-4 preferred shares	(39,347)	(44,497)	(40,975)
Cumulative undeclared dividends on Series C preferred shares	(1,174)	(3,011)	(2,841)
Net loss attributable to common shareholders, basic and diluted	(746,330)	(265,964)	(333,928)
Net loss per share attributable to common shareholders, basic and diluted	\$ (6.23)	\$ (4.20)	\$ (5.30)
Weighted-average shares outstanding used to compute net loss per share, basic and diluted	119,849	63,306	63,032
Comprehensive Loss, net of tax			
Net loss	\$ (705,809)	\$ (214,118)	\$ (289,811)
Foreign currency translation adjustment	89	(13)	29
Comprehensive loss	\$ (705,720)	\$ (214,131)	\$ (289,782)

The accompanying notes are an integral part of these consolidated financial statements.

Tempus AI, Inc.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands, except share and per share amounts)

	Year Ended December 31,		
	2024	2023	2022
Operating activities			
Net loss	\$ (705,809)	\$ (214,118)	\$ (289,811)
Adjustments to reconcile net loss to net cash used in operating activities			
Change in fair value of warrant liability	\$ 42,400	\$ (8,000)	\$ 4,700
Gain on warrant termination	(39,100)	—	—
Reversal of warrant contract asset amortization	(16,301)	—	—
Gain on warrant exercise	(173)	—	—
Stock-based compensation	534,138	—	—
Amortization of warrant contract asset	4,843	5,221	4,720
Change in fair value of warrant asset	(18,302)	(4,100)	—
Gain on marketable equity securities	(12,110)	(9,807)	—
Losses from equity method investments	4,228	301	595
Amortization of original issue discount	1,382	1,117	238
Amortization of deferred financing fees	510	510	139
Change in fair value of contingent consideration	72	(400)	(3,701)
Depreciation and amortization	37,245	33,049	30,029
Provision for bad debt expense	680	1,646	3,867
Provision for obsolete inventory	—	—	1,938
Amortization of finance right-of-use lease assets	—	283	381
Non-cash operating lease costs	6,047	6,760	6,427
Minimum accretion expense	197	90	455
Impairment of intangible assets	—	7,359	—
PIK interest added to principal	8,811	3,587	—
Change in assets and liabilities			
Accounts receivable	(61,037)	(7,347)	(8,203)
Inventory	(9,541)	(6,563)	(1,312)
Prepaid expenses and other current assets	(13,683)	(6,474)	(1,094)
Investments and other assets	(751)	(4,209)	(2,296)
Accounts payable	(23,852)	(23,363)	(7,915)
Deferred revenue	(20,942)	(26,412)	67,626
Deferred other income	39,887	—	—
Accrued data licensing fees	(5,000)	(9,121)	(6,746)
Accrued expenses & other	50,540	38,577	22,803
Interest payable	15,129	15,836	16,395
Operating lease liabilities	(8,553)	(8,761)	(7,439)
Net cash used in operating activities	\$ (189,045)	\$ (214,339)	\$ (168,204)
Investing activities			
Purchases of property and equipment	\$ (22,121)	\$ (34,608)	\$ (18,377)
Proceeds from sale of marketable equity securities	23,098	—	—
Purchases of marketable equity securities	(36,183)	—	—
Business combinations, net of cash acquired (Note 3)	—	(5,705)	(39,562)
Investment in joint venture	(95,186)	—	—
Net cash used in investing activities	\$ (130,392)	\$ (40,313)	\$ (57,939)

The accompanying notes are an integral part of these consolidated financial statements.

Tempus AI, Inc.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands, except share and per share amounts)

Financing activities			
Proceeds from issuance of common stock in connection with initial public offering, net of underwriting discounts and commissions	\$ 381,951	\$ —	\$ —
Tax withholding related to net share settlement of restricted stock units	(69,918)	—	—
Issuance of Series G-3 Preferred Stock, net of offering costs	—	—	92,199
Issuance of Series G-4 Preferred Stock, net of offering costs	—	44,885	—
Issuance of Series G-5 Preferred Stock	199,750	—	—
Principal payments on finance lease liabilities	—	(288)	(375)
Purchase of treasury stock	—	(3,602)	—
Payment of deferred offering costs	(8,766)	(698)	(2,883)
Payment of deferred financing fees	—	—	(2,550)
Dividends paid	(5,625)	(5,625)	(5,625)
Proceeds from long-term debt, net of original issue discount	—	82,875	170,625
Payment of indemnity holdback related to acquisition	(813)	—	—
G-4 Special Payment	(2,250)	—	—
Net cash provided by financing activities	\$ 494,329	\$ 117,547	\$ 251,391
Effect of foreign exchange rates on cash	\$ 336	\$ (19)	\$ 17
Net increase (decrease) in Cash, Cash Equivalents and Restricted Cash	\$ 175,228	\$ (137,124)	\$ 25,265
Cash, cash equivalents and restricted cash, beginning of period	166,607	303,731	278,466
Cash, cash equivalents and restricted cash, end of period	<u>\$ 341,835</u>	<u>\$ 166,607</u>	<u>\$ 303,731</u>
Cash, Cash Equivalents and Restricted Cash are Comprised of:			
Cash and cash equivalents	\$ 340,954	\$ 165,767	\$ 302,938
Restricted cash	881	840	793
Total cash, cash equivalents and restricted cash	<u>\$ 341,835</u>	<u>\$ 166,607</u>	<u>\$ 303,731</u>
Supplemental disclosure of cash flow information			
Cash paid during the year for interest	\$ 28,045	\$ 16,913	\$ 4,664
Cash paid for income taxes	\$ 206	\$ 161	\$ 6
Marketable equity securities received on accounts receivable	\$ 22,000	\$ 22,000	\$ —
Supplemental disclosure of noncash investing and financing activities			
Dividends payable	\$ 5,487	\$ 12,535	\$ 5,625
Purchases of property and equipment, accrued but not paid	\$ 4,292	\$ 6,137	\$ 2,408
Deferred offering costs, accrued but not yet paid	\$ —	\$ 3,504	\$ 2,391
Redemption of convertible promissory note	\$ 24,932	\$ 27,970	\$ 17,142
Non-voting common stock issued in connection with business combinations	\$ 344	\$ 9,209	\$ 4,947
Non-voting common stock issued in connection with contingent consideration	\$ —	\$ —	\$ 4,304
Accretion of convertible preferred stock to redemption value	\$ —	\$ 4,338	\$ 301
Operating lease liabilities arising from obtaining right-of-use assets	\$ 1,997	\$ 1,097	\$ 41,815
Finance lease liabilities arising from obtaining right-of-use-assets	\$ —	\$ —	\$ 664
Conversion of redeemable convertible preferred stock to common stock in connection with initial public offering	\$ 1,348,809	\$ —	\$ —
Taxes related to net share settlement of restricted stock units not yet paid	\$ 20	\$ —	\$ —
Reclassification of deferred offering costs to additional paid-in capital upon initial public offering	\$ 12,347	\$ —	\$ —
Issuance of Series G-3 Preferred Stock	\$ 3,809	\$ 2,738	\$ —
Issuance of warrant	\$ —	\$ 4,223	\$ —
Issuance of Series G-4 Preferred Stock	\$ 611	\$ —	\$ —
Issuance of common stock in connection with contingent consideration	\$ 847	\$ —	\$ —

The accompanying notes are an integral part of these consolidated financial statements.

Tempus AI, Inc.

**CONSOLIDATED STATEMENTS OF REDEEMABLE CONVERTIBLE
PREFERRED STOCK, COMMON STOCK AND STOCKHOLDERS' EQUITY (DEFICIT)**

(in thousands, except share and per share amounts)

	Redeemable Convertible Preferred Stock		Voting Common Stock		Non-voting Common Stock		Treasury Stock		Additional Paid-in Capital		Accumulated Deficit		Accumulated Other Comprehensive (Loss) Income		Total Stockholders' Deficit	
	Units	Amount	Units	Amount	Units	Amount	Units	Amount								
Balance at December 31, 2021	61,078,813	\$ 898,291	58,367,961	\$ —	6	\$ —	—	\$ —	—	—	\$ (807,486)	\$ —	(11)	\$ —	(807,491)	
Issuance of Series G-3 Preferred Stock, net of stock issuance costs of \$301	1,614,114	92,199	—	—	—	—	—	—	—	—	—	—	—	—	—	
Impact of adoption of Topic 842	—	—	—	—	—	—	—	—	—	—	271	—	—	—	271	
Accretion of convertible preferred stock to redemption value	—	301	—	—	—	—	—	—	(301)	—	—	—	—	—	(301)	
Foreign currency translation adjustment	—	—	—	—	—	—	—	—	—	29	—	—	—	29	—	
Dividends	—	35,352	—	—	—	—	—	—	301	(41,276)	—	—	—	—	(40,975)	
Non-voting common stock issued in connection with contingent consideration	—	—	—	—	145,466	0	—	—	4,304	—	—	—	—	—	4,304	
Non-voting common stock issued in connection with contingent consideration	—	—	—	—	174,499	0	—	—	4,947	—	—	—	—	—	4,947	
Net loss	—	—	—	—	—	—	—	—	—	—	(289,811)	—	—	—	(289,811)	
Balance at December 31, 2022	62,692,927	\$ 1,026,143	58,367,961	\$ —	6	\$ —	—	\$ —	9,251	\$ (1,138,302)	18	\$ —	—	—	(1,129,027)	
Issuance of Series G-3 Preferred Stock	47,781	2,738	—	—	—	—	—	—	—	—	—	—	—	—	—	
Issuance of Series G-4 Preferred Stock, net of stock issuance costs of \$4,338	785,245	40,662	—	—	—	—	—	—	(4,338)	—	—	—	—	—	(4,338)	
Accretion of convertible preferred stock to redemption value	—	4,338	—	—	—	—	—	—	—	—	—	—	(13)	—	(13)	
Foreign currency translation adjustment	—	—	—	—	—	—	—	—	—	(44,497)	—	—	—	—	(44,497)	
Dividends	—	31,662	—	—	—	—	—	—	—	—	—	—	—	—	(3,602)	
Repurchase of Non-voting Common Stock	—	—	—	—	—	—	(145,466)	(3,602)	—	—	—	—	—	—	9,209	
Common stock issued in connection with business combination	—	—	—	—	—	—	—	—	9,209	—	—	—	—	—	4,223	
Issuance of warrant	—	—	—	—	—	—	—	—	4,223	—	—	—	—	—	—	
Net loss	—	—	—	—	—	—	—	—	—	(214,118)	—	—	—	—	(214,118)	
Balance at December 31, 2023	63,525,953	\$ 1,105,543	58,367,961	\$ —	6	\$ —	(145,466)	\$ (3,602)	\$ 18,345	\$ (1,396,917)	\$ —	\$ —	\$ —	\$ —	(1,382,163)	

The accompanying notes are an integral part of these consolidated financial statements.

Tempus AI, Inc.

**CONSOLIDATED STATEMENTS OF REDEEMABLE CONVERTIBLE
PREFERRED STOCK, COMMON STOCK AND STOCKHOLDERS' EQUITY (DEFICIT)**
(in thousands, except share and per share amounts)

	Redeemable Convertible Preferred Stock		Voting Common Stock						Non-Voting Common Stock		Treasury Stock		Additional Paid-in Capital		Accumulated Deficit		Accumulated Other Comprehensive (Loss) Income		Total Stockholders' Deficit	
			Class A		Class B															
	Units	Amount	Units	Amount	Units	Amount	Units	Amount	Units	Amount	Units	Amount	Units	Amount	Units	Amount	Units	Amount	Units	Amount
Balance at December 31, 2023	63,525,953	\$ 1,105,543	58,367,961	\$ 6	—	\$ —	—	—	5,205,802	\$ 0	(145,466)	\$ (3,602)	18,345	\$ (1,396,917)	\$ —	\$ —	—	\$ —	—	\$ (1,382,163)
Issuance of Series G-3 Preferred Stock	66,465	3,809	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Issuance of Series G-4 Preferred Stock	10,666	611	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Issuance of Series G-5 Preferred Stock	3,489,981	199,750	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Common stock issued in connection with business combinations	—	—	—	—	—	—	—	—	9,141	0	—	—	344	—	—	—	—	—	—	344
Dividends	—	33,669	—	—	—	—	—	—	—	—	—	—	—	(39,347)	—	—	—	—	—	(39,347)
Issuance of common stock in connection with initial public offering, net of underwriting discounts and other offering costs	—	—	11,100,000	1	—	—	—	—	—	—	—	—	369,603	—	—	—	—	—	—	369,604
Issuance of common stock in connection with contingent consideration	—	—	19,620	0	—	—	—	—	—	—	—	—	847	—	—	—	—	—	—	847
Stock option exercise	—	—	205,847	0	—	—	—	—	—	—	—	—	(0)	—	—	—	—	—	—	(0)
Conversion of redeemable convertible preferred stock to common stock in connection with initial public offering	(67,093,065)	(1,343,382)	71,976,178	7	5,043,789	1	—	—	—	—	—	—	1,357,562	(8,761)	—	—	—	—	—	1,348,809
Conversion of non-voting common stock to Class A common stock	—	—	5,069,477	1	—	—	—	(5,214,943)	0	—	—	—	(1)	—	—	—	—	—	—	0
Issuance of common stock upon settlement of restricted stock units, net	—	—	10,228,430	1	—	—	—	—	—	—	—	—	(70,001)	—	—	—	—	—	—	(70,000)
Issuance of common stock upon settlement of warrant	—	—	109,459	0	—	—	—	—	—	—	—	—	(173)	—	—	—	—	—	—	(173)
Stock-based compensation expense	—	—	—	—	—	—	—	—	—	—	—	—	534,138	—	—	—	—	—	—	534,138
Foreign currency translation adjustment	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	89	—	89
Net loss	—	—	—	—	—	—	—	—	—	—	—	—	—	(705,809)	—	—	—	—	—	(705,809)
Balance at December 31, 2024	—	\$ —	157,076,972	\$ 16	5,043,789	\$ 1	—	\$ —	—	—	(145,466)	\$ (3,602)	\$ 2,210,664	\$ (2,150,834)	\$ —	94	\$ —	—	\$ —	\$ 56,339

The accompanying notes are an integral part of these consolidated financial statements.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. DESCRIPTION OF BUSINESS

Company Information

Tempus AI, Inc., together with the subsidiaries through which it conducts business (the “Company” or “Tempus”), is a healthcare technology company focused on bringing artificial intelligence and machine learning to healthcare in order to improve the care of patients across multiple diseases. The Company combines the results of laboratory tests with other multimodal datasets to improve patient care by supporting all parties in the healthcare ecosystem, including physicians, researchers, payers, and pharmaceutical companies. The Company primarily derives revenue from selling comprehensive genetic testing to physicians and large academic research institutions, licensing data to third parties, matching patients to clinical trials, and related services.

The Company, based in Chicago, Illinois, was founded by Eric P. Lefkofsky, the Company’s CEO and Executive Chairman, and evolved from a business Mr. Lefkofsky founded called Bioin. Bioin originally was established as a limited liability company. Effective September 21, 2015, Bioin converted its legal form to a corporation organized and existing under the General Corporation Law of the State of Delaware. Bioin subsequently changed its legal name to Tempus Health, Inc. in September 2015, to Tempus Labs, Inc. in October 2016 and to Tempus AI, Inc. in December 2023.

Initial Public Offering

On June 13, 2024, the Company’s registration statement relating to its initial public offering (the “IPO”) was declared effective and its Class A common stock began trading on the Nasdaq Global Select Market on June 14, 2024. On June 17, 2024, the Company completed its IPO in which it issued and sold 11,100,000 shares of Class A common stock, at a public offering price of \$37.00 per share. The Company received net proceeds of \$382.0 million after deducting underwriting discounts and commissions of \$28.7 million.

In connection with the closing of the IPO, all shares of the Company’s then-outstanding redeemable convertible preferred stock, other than the Company’s Series B redeemable convertible preferred stock, converted into an aggregate of 66,309,550 shares of Class A common stock. The Company’s Series B redeemable convertible preferred stock converted on a one-for-one basis into an aggregate of 5,374,899 shares of Class B common stock. Subsequently, 331,110 shares of Class B common stock were automatically converted into shares of Class A common stock, such that there are 5,043,789 shares of Class B common stock outstanding immediately following the IPO. The Company issued an additional 236,719 shares of Class A common stock pursuant to a separate agreement with an investor in the Series G-3 convertible preferred stock.

As of June 16, 2024, the Company’s redeemable convertible preferred stock had accrued \$188.2 million of unpaid dividends, which were paid in 5,098,799 shares of Class A common stock at the closing of the IPO.

Outstanding shares of non-voting common stock were converted on a one-for-one basis into 5,069,477 shares of Class A common stock.

The restricted stock units (“RSUs”) granted to employees pursuant to the Company’s 2015 Stock Plan (the “2015 Plan”) are subject to two vesting conditions. The first is a time-based component. The second vesting condition is the occurrence of a liquidity event. The liquidity event condition related to these awards was satisfied upon the IPO and, as a result, the Company recognized \$488.3 million of stock-based compensation expense for the three months ended June 30, 2024. In connection with the IPO, the Company settled an aggregate of 4,568,291 fully vested RSUs (the “IPO Settled RSUs”). To meet the related tax withholding requirements, the Company withheld 1,911,316 shares from the 4,563,164 shares of Class A common stock issuable upon settlement of the IPO Settled RSUs. Based on the public offering price of \$37.00 per share, the tax withholding obligation was \$70.8 million.

In connection with the IPO, the Company issued 109,459 shares of Class A common stock upon the automatic net exercise of a warrant issued to Allen & Company LLC (“Allen”), as further described in Note 9.

In connection with the IPO, the Company amended and restated its certificate of incorporation (the “Restated Certificate”), under which authorized capital stock consists of 1,000,000,000 shares of Class A common stock, 5,500,000 shares of Class B common stock, and 20,000,000 shares of preferred stock.

Segment Information

The Company operates as one operating and reportable segment. The Company's chief operating decision maker ("CODM") is its chief executive officer, who reviews financial information for purposes of making operating decisions, assessing financial performance and allocating resources. The Company's CODM evaluates financial information on a consolidated basis.

The CODM assesses performance and decides how to allocate resources based on consolidated net loss that is reported on the consolidated statements of operations and comprehensive loss. The CODM uses consolidated net loss to evaluate income generated from segment assets. Net loss is used to monitor budget versus actual results.

Outside of the expenses reported on the consolidated statements of operations and comprehensive loss, the CODM regularly reviews personnel costs and cloud costs within selling, general, and administrative expenses, which the Company has identified as significant segment expenses.

The following summarizes the significant segment expenses reconciled to total selling, general and administrative expenses shown on the consolidated statements of operations and comprehensive loss. Other selling, general, and administrative expenses include facilities, professional fees, marketing, travel and entertainment, depreciation and amortization, and stock-based compensation (see Note 11).

	Year Ended December 31,		
	2024	2023	2022
Selling, general and administrative payroll	162,194	135,466	115,794
Cloud and software	95,401	85,709	63,271
Other selling, general and administrative	497,756	75,585	54,312
Selling, general and administrative	<u>755,351</u>	<u>296,760</u>	<u>233,377</u>

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Principles of Consolidation and Basis of Presentation

The consolidated financial statements include the accounts of Tempus AI, Inc. and its wholly owned subsidiaries. All intercompany accounts and transactions have been eliminated in consolidation. The consolidated financial statements and accompanying notes were prepared in accordance with accounting principles generally accepted in the United States of America ("GAAP") and include the assets, liabilities, revenue and expenses of all wholly owned subsidiaries. Investments in unconsolidated entities in which the Company does not have a controlling financial interest, but has the ability to exercise significant influence, are accounted for under the equity method of accounting. Investments in unconsolidated entities in which the Company is not able to exercise significant influence are accounted for under the cost method of accounting.

The Company believes that its existing cash and cash equivalents and marketable equity securities at December 31, 2024 will be sufficient to allow the Company to fund its current operating plan through at least a period of one year from the date of issuance. As the Company continues to incur losses, its transition to profitability is dependent upon a level of revenues adequate to support the Company's cost structure. Future capital requirements will depend on many factors, including the timing and extent of spending on research and development activities and growth related expenditures.

Reclassification

Certain prior year amounts have been reclassified for consistency with the current year presentation.

Emerging Growth Company

The Company is an "emerging growth company" as defined in Section 2(a) of the Securities Act, as modified by the Jumpstart Our Business Startups Act of 2012 (the "JOBS Act"), and it may take advantage of certain exemptions from various reporting requirements that are applicable to other public companies that are not emerging growth companies including, but not limited to, not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act, reduced disclosure obligations regarding executive compensation in its periodic reports and proxy statements, and exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved.

Further, Section 102(b)(1) of the JOBS Act exempts emerging growth companies from being required to comply with new or revised financial accounting standards until private companies (that is, those that have not had a Securities Act registration statement declared effective or do not have a class of securities registered under the Securities Exchange Act of 1934, as amended) are required to comply with the new or revised financial accounting standards. The JOBS Act provides that a company can elect to opt out of the extended transition period and comply with the requirements that apply to non-emerging growth companies but any such election to opt out is irrevocable. The Company has elected not to opt out of such extended transition period which means that when a standard is issued or revised and it has different application dates for public or private companies, the Company, as an emerging growth company, can adopt the new or revised standard at the time private companies adopt the new or revised standard. This may make comparison of the Company's consolidated financial statements with another public company which is neither an emerging growth company nor an emerging growth company which has opted out of using the extended transition period difficult or impossible because of the potential differences in accounting standards used.

Use of Estimates

The preparation of the consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts and classifications of assets and liabilities, revenue and expenses, and the related disclosures of contingent assets and liabilities in the consolidated financial statements and accompanying notes. The most significant estimates are related to revenue, accounts receivable, stock-based compensation, operating lease liabilities, and the useful lives of property, equipment and intangible assets. Actual results could differ from those estimates.

Cash, Cash Equivalents and Restricted Cash

The Company considers all highly-liquid investments with an original maturity of three months or less from the date of purchase to be cash equivalents. Restricted cash primarily represents amounts that the Company is unable to access for operational purposes pursuant to a letter of credit with a financial institution in connection with an equipment lease. The Company had \$0.9 million and \$0.8 million of restricted cash as of December 31, 2024 and 2023, respectively.

Accounts Receivable and Allowances

Accounts receivable primarily represents the net cash due from the Company's customers, including payors, pharmaceutical companies, and research institutions. Payments of accounts receivable are allocated to the specific invoices identified on the remittance advice. Accounts receivables are reported at their gross outstanding balance reduced by an allowance for doubtful accounts and contractual allowance. The allowance for doubtful accounts is based on the age of an invoice, historical payment trends, as well as forward looking data and current economic trends. The Company had an allowance for doubtful accounts of \$1.1 million as of both December 31, 2024 and 2023.

Concentration of Credit Risk

Financial instruments that potentially expose the Company to concentrations of credit risk are primarily cash, cash equivalents, restricted cash and accounts receivable. The Company maintains cash balances that may exceed the insured limits by the Federal Deposit Insurance Corporation. The Company has not experienced any losses on its deposits of cash.

The Company has credit risk regarding trade accounts receivable as the Company generally does not require collateral, and a limited number of customers have accounted for a large part of the Company's revenue and accounts receivable to date. Allowances are maintained for potential credit losses.

There were no customers that represented a significant portion of the Company's revenues for the years ended December 31, 2024, 2023 and 2022, respectively. One customer accounted for approximately \$11.2 million or 11.9%, of accounts receivable as of December 31, 2023. The amount due from this customer was not material as of December 31, 2024.

Inventories

Inventories, consisting of supplies and consumables used in the lab, are accounted for using the first-in, first-out method of accounting and are valued at the lower of cost or net realizable value. The Company periodically reviews inventory for excess or obsolescence and writes-down obsolete or otherwise un-usable inventory to its estimated net realizable value. Amounts written-down due to obsolete inventory are charged to cost of revenues. As of December 31, 2024, the Company had approximately \$36.9 million of inventory and \$1.5 million of inventory in process in the labs. As of December 31, 2023, the Company had approximately \$27.3 million of inventory and \$1.5 million of inventory in process in the labs.

The Company relies on a sole supplier for certain laboratory materials and equipment. Purchases from this supplier accounted for approximately 39%, 33% and 35% of total vendor payments for the years ended December 31, 2024, 2023 and 2022, respectively. Amounts due to this vendor approximated \$18.2 million and \$11.8 million at December 31, 2024 and 2023, respectively.

Prepaid expenses and Other Current Assets

Prepaid assets are recorded when paid and consistent primarily of prepayments for insurance, medical, software subscriptions, and cloud storage service. Prepaid expenses are amortized into expense over the related service period. Other current assets included in this line are primarily related to the short-term portion of the Company's warrant asset and other receivables. Prepaid expenses and other current assets totaled \$26.1 million and \$17.3 million at December 31, 2024 and 2023, respectively.

Marketable Equity Securities

The Company holds marketable equity securities, all of which are publicly traded shares of common stock, which have quoted prices in active markets and are classified as short-term. The Company's investment in marketable equity securities does not give the Company the ability to control or exercise significant influence over the investee. Marketable equity securities are recorded at fair value. The Company's marketable equity securities totaled \$107.3 million and \$31.8 million as of December 31, 2024 and 2023, respectively. See Note 15, "Fair Value Measurements and Marketable Equity Securities" for further information. Changes in fair value are recorded in earnings within Other income (expense), net on the consolidated statements of operations and comprehensive loss.

Long-Lived Assets

Property and Equipment and Intangibles

Property and equipment are stated at cost and assets under finance leases are stated at the lesser of the present value of minimum lease payments or their fair market value. Depreciation is recognized using the straight-line method over the estimated useful lives of the related assets. Generally, the useful lives are three years for equipment and seven years for furniture and fixtures. Leasehold improvements are amortized on a straight-line basis over the lesser of the term of the lease or the estimated useful life of the asset. Intangibles, other than indefinite-lived intangibles, are amortized using the straight-line method, which approximates the pattern of usage, over their economic life, generally five to seven years. Assets to be disposed of, if any, are separately presented in the consolidated balance sheet and reported at the lower of the carrying amount or fair value, less costs to sell, and are no longer depreciated. See Note 4, "Balance Sheet Components" for additional information about these assets.

Impairment of Long-Lived Assets

The Company evaluates long-lived assets, including property and equipment, and intangible assets for impairment whenever events or changes in business circumstances indicate that the carrying amount of the asset may not be fully recoverable. Recoverability is measured by a comparison of the carrying amount to the net undiscounted cash flows expected to be generated by the asset group. If such assets are impaired, the impairment to be recognized is measured by the amount by which the carrying amount of a long-lived asset exceeds its fair value. Any loss would be recognized in loss from operations in the period in which the determination is made. The Company recognized an impairment charge related to long-lived assets during the year ended December 31, 2023. See Note 5, "Goodwill and Intangibles" for additional information. There were no impairment charges recognized related to long-lived assets during the years ended December 31, 2024 and December 31, 2022.

Goodwill

Goodwill consists of the excess purchase price over the fair value of net assets acquired in business combinations. The Company conducts a test for the impairment of goodwill on at least an annual basis as of October 1st or sooner if indicators of impairment arise. The Company first assesses qualitative factors to determine whether it is more likely than not that goodwill is impaired. As part of the qualitative assessment, the Company evaluates factors including macroeconomic conditions, industry and market considerations, cost factors and overall financial performance of its single reporting unit.

If the Company concludes that it is more-likely-than-not that its single reporting unit is impaired or if the Company elects not to perform the optional qualitative assessment, a quantitative assessment is performed. For the quantitative assessment, the fair value of the Company's reporting unit is compared with the carrying amount of net assets, including goodwill, related to the reporting unit. The Company recognizes an impairment charge for the amount, if any, by which the carrying amount of a reporting unit exceeds the fair value of the reporting unit. The Company recorded no impairment loss during the years ended December 31, 2024, 2023 and 2022.

Equity Method Investments

The Company uses the equity method to account for investments in which it has the ability to exercise significant influence over the investee's operating and financial policies. The Company follows the guidance in ASC 323, *Investments—Equity Method and Joint Ventures*, which prescribes the use of the equity method for investments in joint ventures where the Company has significant influence. The Company records the initial investment at cost and is subsequently adjusted by the Company's share, based on percentage ownership, of the investee's net income or loss after the date of investment. For the Company's foreign-based equity method investment, the proportionate share of the investee's income is translated into USD at the average exchange rate for the period and the investment is translated using the exchange rate as of the end of the reporting period. The unrealized gains and losses associated with the foreign currency translation of the investment are deferred in accumulated other comprehensive income on the Company's consolidated balance sheets.

Variable Interest Entities

A variable interest entity ("VIE") is an entity that (i) has insufficient equity to permit the entity to finance its activities without additional subordinated financial support, (ii) has equity investors who lack the characteristics of a controlling financial interest, or (iii) the entity is established with non-substantive voting rights (i.e., the entity deprives the majority economic interest holder(s) of voting rights). Under ASC 810, *Consolidation*, an entity that holds a variable interest in a VIE and meets certain requirements would be considered to be the primary beneficiary of the VIE and required to consolidate the VIE in its consolidated financial statements. In order to be considered the primary beneficiary of a VIE, an entity must hold a variable interest in the VIE and have both:

- the power to direct the activities that most significantly impact the economic performance of the VIE; and
- the right to receive benefits from, or the obligation to absorb losses of, the VIE that could be potentially significant to the VIE.

If the Company is not the primary beneficiary in a VIE, it accounts for the investment or other variable interests in a VIE in accordance with applicable GAAP. Periodically, the Company assesses whether any changes in its interest or relationship with the entity affects its determination of whether the entity is a VIE and, if so, whether it is the primary beneficiary.

Term Loan

The Company's outstanding term loan (see Note 12) is accounted for in accordance with ASC 470. The original issue discount and deferred financing fees are amortized into interest expense within the consolidated statements of operations using the straight-line method over the term of the underlying debt, and unamortized amounts are presented net of the principal balance within long-term debt in the consolidated balance sheets.

Convertible Note

The Company's outstanding promissory note (see Note 12) is accounted for in accordance with ASC 470. The Company determined the embedded conversion options, redemption features, and acceleration of repayment upon default are not required to be separately accounted for as derivatives under ASC 815 because they were either determined to be clearly and closely related to the host instrument or the Company has concluded that no value would be associated with the related feature based on the circumstances associated with the note's issuance.

Leases

The Company determines whether an arrangement is or contains a lease at inception, and all significant lease arrangements are recognized at lease commencement. The majority of the Company's leases are operating leases and are included in operating lease right-of-use assets, operating lease liabilities, and operating lease liabilities, less current portion

on the consolidated balance sheets. Finance leases are included in finance lease right-of-use, or ROU, assets, finance lease liabilities, and finance lease liabilities, less current portion on the consolidated balance sheets.

ROU assets represent the Company's right to use an underlying asset for the lease term, and lease liabilities represent the Company's obligation to make lease payments arising from the lease. Operating and finance lease ROU assets and operating and finance lease liabilities are recognized at commencement based on the present value of fixed payments not yet paid over the remaining lease term discounted using the Company's incremental borrowing rate. ROU assets also include any lease payments made at or before the lease commencement date, less lease incentives received and deferred rent. As the Company's leases do not provide an implicit rate, the incremental borrowing rate used is estimated based on what the Company would have to pay on a collateralized basis over a similar term as the lease.

The Company has lease arrangements with lease and non-lease components. The Company elected the practical expedient not to separate non-lease components from lease components for the Company's facility leases. Variable lease payments are presented as rent expense in the period in which they are incurred and consist primarily of our proportionate share of operating expenses, utilities, property taxes, insurance, common area maintenance and other facility-related expenses. The Company also elected to apply the short-term lease measurement and recognition exemption in which ROU assets and lease liabilities are not recognized for leases with terms of twelve months or less, and lease expense is recognized on a straight-line basis over the term of the short-term lease. The Company records rent expense in its consolidated statements of operations and comprehensive loss on a straight-line basis over the term of the lease and records variable lease payments as incurred. The Company's lease terms may include options to extend or terminate the lease, which the Company includes in calculating the operating lease liabilities if it is reasonably certain that the Company will exercise the option. As of December 31, 2024, the Company's lease liabilities did not include any options to extend or terminate any of its leases.

Revenue Recognition

The Company derives revenue from selling lab services ("Genomics") to physicians, academic research institutions, and other parties. The Company also derives revenue from the commercialization of data generated in the lab ("Data and services") through the licensing of de-identified datasets to third parties and by providing clinical trial support, such as matching patients to clinical trials enrolled in its clinical trial network, and related services. The majority of the Company's revenue is generated in North America.

The Company accounts for revenue in accordance with Financial Accounting Standards Board ("FASB") ASC 606 *Revenue from Contracts with Customers* ("ASC 606"). The Company commences revenue recognition when control of these products is transferred to customers in an amount that reflects the consideration the Company expects to be entitled to in exchange for such products. This principle is achieved by applying the five-step approach: (i) the Company accounts for a contract when it has approval and commitment from both parties, (ii) the rights of the parties are identified, (iii) payment terms are identified, (iv) the contract has commercial substance and (v) collectability of consideration is probable. Revenues and any contract assets are not recognized until such time that the required conditions are met.

Disaggregation of Revenue

The Company provides disaggregation of revenue based on Genomics and Data and services on the consolidated statements of operations and comprehensive loss, as it believes these best depict how the nature, amount, timing and uncertainty of revenue and cash flows are affected by economic factors.

Genomics

The Company generally recognizes revenue for its Genomics product offering when it has met its performance obligation relating to an order. The Company has determined its sole performance obligation to be the delivery of the testing results to the ordering party. The Company receives payments from Medicare, Medicaid, and commercial insurance for clinical orders and directly from research institutions, pharmaceutical companies or other third parties for direct bill orders. The Company recognized Genomics revenue of \$451.7 million, \$363.0 million and \$198.0 million for the years ended December 31, 2024, 2023 and 2022, respectively.

For clinical orders from Medicare, Medicaid, and commercial insurance, the Company determines transaction price by reducing the standard charge by the estimated effects of any variable consideration, such as contractual allowance and implicit price concessions. The Company estimates the contractual allowances and implicit price concessions based on historical collections in relation to established rates, as well as known current or anticipated reimbursement trends not reflected in the historical data. Estimates are inclusive of the consideration to which the Company will be entitled at an

amount for which it is probable that a reversal of cumulative consideration will not occur. The Company monitors the estimated amount to be collected at each reporting period based on actual cash collections in order to assess whether a revision to the estimate is required. During the year ended December 31, 2023, the Company recognized \$12.2 million from cash collections in excess of revenue recognized in prior years, primarily as a result of achieving a higher success rate on appeals than estimated. During the year ended December 31, 2024, the amount recognized from cash collections in excess of revenue recognized in prior years was not material. Payment is typically due after the claim has been processed by the payer, generally 30-120 days from date of service. While management believes that the estimates are accurate, actual results could differ and the potential impact on the financial statements could be significant. The Company recognized revenue for clinical orders of \$409.4 million, \$328.4 million and \$157.2 million for the years ended December 31, 2024, 2023 and 2022, respectively.

For direct bill orders from research institutions, pharmaceutical companies, or other third parties, the Company determines the transaction prices based on established contractual rates with the customer, net of any applicable discounts. Payment is typically due between 30 and 60 days following the date of invoice. The Company recognized Genomics revenue for direct bill orders of \$42.3 million, \$34.6 million and \$40.8 million for the years ended December 31, 2024, 2023 and 2022, respectively.

Data and services

Data and services revenue primarily represents data licensing and clinical trial services that the Company provides to pharmaceutical and biotechnology companies. The Company's arrangements with these customers often have terms that span multiple years. However, these contracts generally also include customer opt-in or early termination clauses after twelve months without contractual penalty. The customer's option to renew is generally not viewed as a material right, and as a result, the Company's contract period for these agreements is generally considered less than one year. The Company determines the transaction price based on established contractual rates with the customer, net of any applicable discounts. The Company recognizes revenue for its Data and services product offering when it has met its performance obligation under the terms of the agreement with the customer. The Company's two product offerings are as follows:

Insights

The Company's Insights product consists primarily of licensing and analysis of de-identified records. Each Insights contract is unique and may include multiple promises, including the delivery of licensed de-identified records, including refreshes, analytical services or access to the Company's enhanced Lens application. The Company evaluates each contract to determine which performance obligations are capable of being distinct and separately identifiable from other promises in the contract and, therefore, represent distinct performance obligations. The actual timing of data deliveries can be based on a variety of factors, including, but not limited to, the customer's requirement and/or the Company's technological, operational, and human capital capacity; in addition, management assesses relevant contractual terms in contracts with customers and applies significant judgment in identifying and accounting for all terms and conditions in certain contracts. The transaction price is allocated to the distinct performance obligations and revenue is recognized once the performance obligation has been fulfilled. The standalone selling prices are based on the Company's normal pricing practices when sold separately with consideration of market conditions and other factors, including customer demographics.

The Company has determined that the delivery of de-identified records and, when applicable, analytical services, and access to its enhanced Lens application are separate and distinct performance obligations. The primary Insights contract types are as follows:

- *Data licensing on a one-time or limited duration basis* – Customer licenses a specific dataset of records, and the Company accounts for individual licensed data records as a right to use license. Revenue is typically recognized upon delivery of the data to the customer, as the Company's obligations for an individual record is complete once the data has been delivered, and the customer is able to benefit from the provision of data as it is received.
- *Multi-year data subscriptions* – Customer licenses an interchangeable maximum number of de-identified records, and the Company accounts for the service as a right to access license and one performance obligation. Revenue is recognized as access to the dataset is provided, ratably over-time, with the measure of progress time-based.
- *Analytical services and other services* – Services typically involve data analysis and research performed on behalf of the customer by the Company. The resulting delivery of data, or a report addressing a series of questions and analytical results, is considered a single performance obligation. Revenue is generally recognized upon the delivery of these services, as defined by the contract.

- *Enhanced Lens application subscription services* – Customer licenses access to the Company’s enhanced Lens application under a software-as-a-service model. Customers do not have the right to take possession of the Lens platform application, and the online software product is fully functional once a customer has access. Lens subscription revenues are recognized ratably over the contract terms beginning on the date the Company’s service is made available to the customer. For the periods presented, revenue from Lens subscription services are not material.

The Company recognized revenue from Insights products of \$186.8 million, \$117.6 million and \$88.4 million for the years ended December 31, 2024, 2023 and 2022, respectively.

Trials

The Company’s Trials product includes TIME clinical trial matching services and other clinical trial services.

TIME consists primarily of matching patients to clinical trial sponsors of a potential match. To the extent the contract requires, the Company may also assist in opening the clinical trial site and enrolling the patient in the clinical trial. The Company has determined that, depending on the type of agreement, the performance obligation of these contracts is the delivery of a notification or the enrollment of a patient in a clinical trial. As such, revenue is recognized upon one of the following: delivery of a notification to the physician alerting them to a clinical trial match, or once a patient is enrolled in a trial. Concurrently, the customer, which is the clinical trial sponsor, also receives notification from the Company to establish the performance obligations delivered or fulfilled for the billing period.

In addition to TIME, the Company provides other clinical trial services conducting or supporting studies. Tempus Compass LLC, a subsidiary of the Company, is a contract research organization, or CRO, which manages and executes early and late-stage clinical trials, primarily in oncology. Contracts for clinical trial services can take the form of fee-for-service or fixed-price contracts. Fee-for-service contracts are typically priced based on time and materials, and revenue is recognized based on hours and materials used as the services are provided. Fixed-price contracts generally represent a single performance obligation and are recognized over-time using a cost-based input method. Progress on the performance obligation is measured by the proportion of actual costs incurred to the total costs expected to complete the contract. This cost-based method of revenue recognition requires the Company to make estimates of costs to complete its projects on an ongoing basis. Contract costs principally include direct labor and reimbursable out-of-pocket costs.

The Company recognized revenue from Trials products of \$42.4 million, \$45.6 million and \$31.2 million for the years ended December 31, 2024, 2023 and 2022, respectively.

For Insights and Trials arrangements, pricing is fixed and the Company may be compensated through a combination of an upfront payment and performance-based, non-refundable payments due upon completion of the stated performance obligation(s). Payment is generally due 60 to 90 days after the date of service. The Company has no significant obligations for refunds, warranties, or similar obligations for Data and services product offerings. The Company has elected the practical expedient, which allows the Company to not disclose remaining performance obligations for contracts with original terms of twelve months or less. Cancelable contracted revenue is not considered a remaining performance obligation. The Company recognized Data and services revenue from pharmaceutical companies, non-for-profits, and researchers of \$241.6 million, \$168.8 million and \$122.7 million for the years ended December 31, 2024, 2023 and 2022, respectively.

Multi-year Contract Performance Obligations

The Company has limited multi-year contracts that do not contain early termination or customer opt-in clauses. These contracts contained defined, noncancelable performance obligations that will be fulfilled in future years. The Company’s remaining performance obligations related to multi-year contracts was \$202.8 million as of December 31, 2024, of which the Company expects to recognize approximately 49% as revenue over the next year, and the remaining 36% and 15% of its remaining performance obligations as revenue in years two and three, respectively.

Warrant Liability

The Company issued a warrant to its customer AstraZeneca in conjunction with the signing of a November 2021 MSA. The warrant to purchase up to \$100 million in shares of the Company’s Class A common stock is a freestanding financial instrument classified as noncurrent liability on the Company’s consolidated balance sheets. Warrants are accounted for as liability-classified instruments based on an assessment of the warrant’s specific terms and applicable authoritative guidance in FASB ASC 480, *Distinguishing Liabilities from Equity* (“ASC 480”). The fair value of the warrant liability is measured each reporting period and any change in fair value of the warrant liability is recorded in Other income (expense), net within

the consolidated statements of operations. The warrant was automatically cancelled and terminated for no consideration as AstraZeneca declined to extend its financial commitment before December 31, 2024. As a result, the Company recognized a \$76.9 million gain in Other income (expense), net related to write down the warrant liability to \$0. See Note 15 for further information.

Warrant Asset

As consideration for the Company's obligations to Personalis under a Commercialization and Reference Laboratory Agreement signed in November 2023, Personalis issued certain warrants to the Company to purchase up to an aggregate of 9,218,800 shares of Personalis' common stock, up to 4,609,400 shares of which are exercisable for cash at any time prior to December 31, 2024 at an exercise price of \$1.50 per share, and up to 4,609,400 shares of which are exercisable for cash at any time prior to December 31, 2025 at an exercise price of \$2.50 per share. In August 2024, the Company exercised the warrants in full at their respective exercise prices for an aggregate of 9,218,800 shares of Personalis common stock at an aggregate purchase price of \$18.4 million. See Note 15 for further information. The fair value of the warrant asset is measured each reporting period, and any change in fair value is recorded in Other income (expense), net within the consolidated statements of operations.

Contract Assets

Timing of revenue recognition may differ from the timing of invoicing to customers. Certain performance obligations may require payment before delivery of the service to the customer. The Company recognizes contract assets when the Company has an unconditional right to payment, and when revenues earned on a contract exceeds the billings. Contract assets are presented under accounts receivable, net. Accounts receivable as of December 31, 2024 and 2023 included contract assets of \$4.1 million and \$2.4 million, respectively.

During the fourth quarter of 2021, and in conjunction with the signing of a November 2021 Master Services Agreement ("the MSA") with customer AstraZeneca AB ("AstraZeneca"), the Company recognized a contract asset for consideration payable concurrent with the issuance of the common stock warrant in accordance with ASC 606. The contract asset was initially measured equal to the initial fair value of the warrant liability based on the authoritative guidance under FASB ASC 718 *Compensation—Stock Compensation*. As revenue is recognized over the period of the contractual commitment of the MSA, the associated contract asset amortization is recorded as reduction of revenue. At each reporting period, the short-term portion of the warrant asset is adjusted based on the financial commitment and reclassified to Prepaid expenses and other current assets. The warrant was terminated for no consideration on December 31, 2024. In accordance with ASC 606, the Company recognized \$16.3 million in Data and services revenue to reverse historical warrant contract asset amortization, of which \$11.5 million was recorded as contra revenue in prior periods. Additionally, the Company recognized expense of \$37.8 million in Other income (expense), net to reverse the warrant contract asset balance as of December 31, 2024.

The following summarizes the warrant contract asset presentation as of December 31, 2024 and 2023 (in thousands):

	December 31, 2024	December 31, 2023
Prepaid expenses and other current assets	\$ —	\$ 4,843
Warrant contract asset, less current portion	—	21,499
Total warrant contract asset	<u>\$ —</u>	<u>\$ 26,342</u>

In November 2023, the Company entered into a Commercialization and Reference Laboratory Agreement with Personalis, Inc. ("Personalis"), which was subsequently amended in August 2024 and November 2024. The Company will pay up to \$12.0 million to Personalis over three years as certain milestones are met, \$9.0 million of which has been paid as of December 31, 2024. These payments are treated as contract assets and amortized into revenue over the life of the contract. Contract asset balances are offset by deferred revenue generated from receipt of warrants for Personalis common stock (see Note 15). As of December 31, 2024 and 2023, there was \$3.0 million and \$0.1 million, respectively, of net contract assets related to this agreement recorded in Prepaid expenses and other current assets, respectively.

Deferred Revenue

Deferred revenue consists of billings or cash received for services in advance of revenue recognition and is recognized as revenue when all the Company's revenue recognition criteria are met. The deferred revenue balance is influenced primarily by upfront contractual payments from the Company's Data and Services product offerings and timing of delivery of the Company's de-identified licensed data and clinical test results. The portion of deferred revenue that is anticipated to be

recognized as revenue during the succeeding twelve-month period is recorded as deferred revenue, current and any remaining portion is recorded as deferred revenue, non-current. The Company recognized \$69.5 million, \$43.5 million and \$13.8 million during the years ended December 31, 2024, 2023 and 2022, respectively, that was included in the corresponding deferred revenue balance at the beginning of the periods.

Cost of Revenue, Genomics

Cost of revenue for Genomics consists of personnel lab expenses, including salaries, bonuses, employee benefits, amortization of intangible assets, cost of laboratory supplies and consumables, depreciation of laboratory equipment, shipping costs, third-party laboratory costs, and certain allocated overhead expenses. Costs associated with performing the Company's tests are recorded as the tests are processed regardless of whether revenue was recognized with respect to that test.

Cost of Revenue, Data and services

Cost of revenue for Data and services includes data acquisition and royalty fees, and personnel costs related to our delivery of our data services and platform, and certain allocated overhead expenses. Costs associated with performing data services are recorded as incurred.

Technology Research and Development

Technology research and development expense primarily includes personnel costs incurred related to the research and development of the Company's technology platform and applications and the research and development of new products which the Company hopes to bring to the market. Technology research and development costs are expensed as incurred.

Research and Development

Research and development expenses include costs incurred to develop new assays and algorithms, and include salaries and benefits, amortization of intangible assets, inventory costs, overhead costs, validation costs, contract services and other related costs. Research and development costs are expensed as incurred.

401(k) Plan

The Company has a 401(k) tax deferred savings plan under which eligible employees may elect to have a portion of their salary deferred and contributed to the plan. Employer matching contributions are determined by the Company and are discretionary. During the years ended December 31, 2024, 2023 and 2022, the Company did not match any employee contributions.

Income Taxes

Income taxes are provided for the tax effects of transactions reported in the consolidated financial statements and consist of taxes currently due plus deferred taxes. Deferred taxes are recognized based on differences between the basis of assets and liabilities for financial reporting and income tax purposes and are measured using enacted rates. The differences relate primarily to timing of deductibility of certain expenses and the estimated future effects of net operating loss carryforwards. Deferred tax assets and liabilities represent the future tax consequences of those differences, which will either be taxable or deductible when the assets and liabilities are recovered or settled. Deferred tax assets and liabilities are adjusted for the effects of changes in tax laws and rates on the date of enactment.

Companies are required to assess whether a valuation allowance should be recorded against their deferred tax assets ("DTAs") based on the consideration of all available evidence, using a "more likely than not" realization standard. The four sources of taxable income that must be considered in determining whether DTAs will be realized are, (1) future reversals of existing taxable temporary differences (i.e., offset of gross deferred tax assets against gross deferred tax liabilities); (2) taxable income in prior carryback years, if carryback is permitted under the tax law; (3) tax planning strategies and (4) future taxable income exclusive of reversing temporary differences and carry forwards.

In assessing whether a valuation allowance is required, significant weight is given to evidence that can be objectively verified. The Company has evaluated its DTAs in each reporting period, including an assessment of its cumulative income or loss, to determine if a valuation allowance was required. After a review of the four sources of taxable income described above, the Company established a valuation allowance against the Company's net deferred tax assets due to uncertainty surrounding the Company's ability to generate future taxable income to realize these assets.

As of December 31, 2024, the Company had tax effected federal and state net operating loss ("NOL") carryforward of approximately \$257.0 million and \$51.7 million, respectively, which may be available to offset future taxable income. The NOLs will begin to expire in 2037.

The Company evaluates tax positions under an approach for recognition and measurement of uncertain tax positions. The Company recognizes tax liabilities when the Company believes that certain positions may not be fully sustained upon review by tax authorities. Benefits from tax positions are measured at the largest amount of benefit that is more likely than not of being realized upon settlement. To the extent that the final tax outcome of these matters is different than the amounts recorded, such differences impact income tax expense in the period in which such determination is made. Interest and penalties, if any, related to accrue liabilities for potential tax assessments are included in income tax expense.

The Company has concluded that as of December 31, 2024 and 2023, there are no uncertain positions taken or expected to be taken that would require recognition of a liability in the financial statements.

The Company is subject to routine audits by taxing jurisdictions. As of December 31, 2024, the Company was not under audit in any jurisdiction.

Net Loss Per Share Attributable to Common Stockholders

Basic and diluted net loss per share attributable to common stockholders is presented in conformity with the two-class method required for participating securities. The Company considers all series of its redeemable convertible preferred stock to be participating securities. Prior to the IPO, under the two-class method, the net loss attributable to common stockholders was not allocated to the redeemable convertible preferred stock as the holders of its redeemable convertible preferred stock did not have a contractual obligation to share in the Company's losses. Upon IPO, the Company's redeemable convertible preferred stock converted to either Class A or Class B common stock and therefore will be included in allocation of net loss attributable to common stockholders as they will share in the Company's losses. Net income is attributed to common stockholders and participating securities based on their participation rights. Basic net loss per share attributable to common stockholders is computed by dividing the net loss attributable to common stockholders by the weighted-average number of shares of common stock outstanding during the period. Diluted earnings per share attributable to common stockholders adjusts basic earnings per share for the potentially dilutive impact of stock options and redeemable convertible preferred stock. As the Company has reported losses for all periods presented, all potentially dilutive securities are antidilutive and accordingly, basic net loss per share equals diluted net loss per share.

Deferred Offering Costs

Deferred offering costs consist primarily of accounting, legal, and other fees related to the IPO. The Company had \$7.1 million of deferred offering costs as of December 31, 2023. Prior to the IPO, deferred offering costs were capitalized on the consolidated balance sheets. Upon the consummation of the IPO, \$12.3 million of deferred offering costs were reclassified into additional paid-in capital as an offset against IPO proceeds.

Stock-Based Compensation

Compensation expense relating to share-based payments is recognized in operations using a fair value measurement method. Under the fair value method, the estimated fair value of awards is charged to operations on a straight-line basis over the requisite service period, which is generally the vesting period. The Company recognizes forfeitures as they occur. See Note 11 for further information on stock-based compensation.

Fair Value Measurements

Fair value is defined under GAAP 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. Fair value is a market-based measurement that is determined based on assumptions that market participants would use in pricing an asset or a liability.

To increase the comparability of fair value measures, the following hierarchy prioritizes the inputs in valuation methodologies used to measure fair value:

Level 1—Measurements that reflect quoted prices (unadjusted) for identical assets or liabilities in active markets.

Level 2—Measurements that include other inputs that are directly or indirectly observable in the marketplace.

Level 3—Measurements derived from valuation techniques in which one or more significant inputs or significant value drivers are unobservable.

To the extent that valuation is based on models or inputs that are less observable or unobservable in the market, the determination of fair value requires more judgment. Accordingly, the degree of judgment exercised by the Company in determining fair value is greatest for instruments categorized in Level 3. A financial instrument's level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. Fair value measurements are discussed further in Note 15.

It is the Company's policy, in general, to measure nonfinancial assets and liabilities at fair value on a nonrecurring basis. These items are not measured at fair value on an ongoing basis but are subject to fair value adjustments in certain circumstances (such as evidence of impairment) which, if material, are disclosed in the accompanying notes to these consolidated financial statements.

Classification and Accretion of Convertible Preferred Stock

The Company's Series A, B, B-1, B-2, C, D, E, F, G, G-2, G-3, G-4, and G-5 convertible preferred stock were classified outside of stockholders' equity (deficit) because the holders of such shares have liquidation rights in the event of a deemed liquidation that, in certain situations, is not solely within the control of the Company.

Foreign Currency

Assets and liabilities of the Company's foreign subsidiaries are translated into U.S. dollars (USD) using period-end exchange rates while revenues and expenses are translated at the average exchange rate for the period presented. Gains or losses from balance sheet translation are the only component of accumulated other comprehensive loss in the consolidated balance sheet.

Recently Adopted Accounting Standards

In November 2023, the FASB issued ASU No. 2023-07, Segment Reporting (Topic 280), which provides enhanced disclosures about significant segment expenses. The standard also enhances interim disclosure requirements and provides new segment disclosure requirements for entities with a single reportable segment. The Company adopted the year-end disclosure requirements as of December 31, 2024. The adoption of the standard did not have a material impact on the Company's financial statements.

Recently Issued Accounting Pronouncements Not Yet Adopted

In December 2023, the FASB issued ASU 2023-09, "Income Taxes (Topic 740): Improvement to Income Tax Disclosures." ASU 2023-09 requires additional disclosures aimed at enhancing the transparency and decision usefulness of income tax disclosures. This ASU is effective for fiscal years beginning after December 15, 2024. The Company does not expect this ASU to have a material impact on the Company's disclosures. The Company plans to adopt the guidance for the fiscal year ending December 31, 2025 on a prospective basis.

In November 2024, the FASB issued ASU 2024-03, "Income Statement—Reporting Comprehensive Income (Topic 220): Disaggregation of Income Statement Expenses." ASU 2024-03 requires additional disclosures aimed at enhancing the transparency and decision usefulness of income statement expenses. This ASU is effective for fiscal years beginning after December 15, 2026 as well as interim periods beginning after December 15, 2027 and requires retrospective application to all prior periods presented in the financial statements. The Company is currently evaluating the impact of the guidance on the related disclosures.

3. BUSINESS COMBINATIONS

SEngine

On October 3, 2023, the Company acquired all of the issued and outstanding interests of SEngine Precision Medicine LLC ("SEngine"), a Delaware limited liability company. The acquisition gives the Company access to SEngine's meaningful organoid repository, advanced bioinformatics capabilities, and PARIS test platform.

The acquisition resulted in goodwill of \$9.6 million. The aggregate acquisition date fair value of consideration for the SEngine acquisition totaled \$9.9 million. Consideration consisted of \$2.8 million of cash and \$6.3 million of non-voting common stock. The transaction also includes contingent consideration of up to 35,000 additional shares of non-voting common stock if a liquidity event is completed prior to December 31, 2027. The contingent consideration liability is remeasured at fair value in each period following the closing within selling, general and administrative expense. In accordance with the terms of the agreement, \$1.4 million in equity was held back and is payable on October 3, 2024, which is net of a net working capital adjustment less than \$0.1 million. The Company issued 429 shares of non-voting common stock to the selling corporation in February 2024 related to the net working capital adjustment. In December 2024, the Company issued 19,620 shares of Class A common stock as payment of the contingent consideration. As of December 31, 2024, no other amounts are due under the contingent consideration or holdback agreements.

Mpirik

On March 8, 2023, the Company acquired all of the issued and outstanding interests of Mpirik, Inc. ("Mpirik"), a cardiology-focused healthcare technology company specializing in data-driven patient screening, automated care coordination, and clinical research. Mpirik's platform adds to the Company's existing portfolio to address the way heart disease is detected, diagnosed, and treated, further expanding Tempus's cardiology business. The acquisition resulted in goodwill of \$10.6 million. The aggregate acquisition date fair value of consideration for the Mpirik acquisition totaled \$9.7 million. Consideration was made up of \$4.6 million of non-voting common stock, \$4.7 million of cash, and contingent consideration payable in cash with an acquisition date fair value of \$0.4 million. In accordance with the terms of the agreement, \$0.8 million in cash consideration and \$0.3 million in equity consideration was held back and paid on March 11, 2024. In accordance with the equity consideration held back, the Company issued 8,724 shares of non-voting common stock to Mpirik shareholders in March 2024.

Cash consideration of \$4.7 million is net of a \$0.3 million net working capital adjustment. In accordance with the terms of the agreement, the securityholders of the acquired business were entitled to receive contingent consideration from the Company payable in an aggregate value of \$1.0 million in cash, contingent upon the acquired business reaching a revenue target of \$1.5 million for the twelve-month period ended December 31, 2023. The contingent consideration had an acquisition fair value date of \$0.4 million, which the Company recognized within Other current liabilities. The contingent consideration was remeasured at fair value in each period following the closing within selling, general and administrative expense. Mpirik did not achieve the revenue target for the twelve-month period ended December 31, 2023. As such, the contingent consideration liability was written down to \$0. In addition, the Company issued 17,450 performance stock units to certain retained Mpirik employees on the closing date of the acquisition. In July 2023, the Company's board of directors approved the removal of the performance-vesting condition, following which performance stock units are treated as restricted stock units.

Arterys

On October 3, 2022, the Company acquired Arterys, Inc. ("Arterys"), a company that provides a platform to derive insights from radiology medical images to improve diagnostic decision-making, efficiency, and productivity across multiple disease areas, which resulted in goodwill of \$11.1 million. The aggregate acquisition date fair value of consideration for the Arterys acquisition totaled \$8.3 million, net of cash acquired of \$0.3 million. Consideration was made up of \$4.9 million of non-voting common stock and \$3.0 million of cash. Cash consideration of \$3.0 million is net of a \$1.0 million working capital adjustment paid back to Tempus in March 2023.

Highline

On January 4, 2022, the Company entered into a Unit Purchase Agreement with Highline Consulting, LLC ("Highline"), a California limited liability company, Highline Consulting Parent, LLC, and the unitholders of Highline (collectively, the "Sellers"), pursuant to which the Company acquired all of the issued and outstanding interests of Highline, which transaction is referred to as the "Highline Acquisition". Highline manages and executes on early and late-stage clinical trials, applying a customized approach to each study. Highline's capabilities and expertise will help support and grow new and established business lines within Tempus, allowing the Company to vertically integrate more clinical trial services when

appropriate to complement its existing CRO partnerships. Highline revenue will be included within Data and services revenue in the Company's consolidated financial statements. The Company subsequently renamed Highline as Tempus Compass, LLC.

The Company acquired Highline for a purchase price of \$35.5 million. In addition, following the closing, the Sellers will be entitled to receive contingent consideration from the Company in an aggregate amount of up to \$5.0 million, payable in a combination of cash and shares of the Company's Class A common stock, contingent upon certain individual Sellers remaining employed by the Company as of the first and second anniversary of the closing. The contingent payments will be recorded pro rata over the two years following the closing within selling, general and administrative expense. In addition, the Company established a retention bonus pool of restricted stock units with an aggregate value of \$4.0 million to be allocated among Highline employees retained by the Company. The retention bonus pool will be recorded as compensation expense over the requisite service period.

The Company incurred an insignificant amount of transaction costs related to the Highline Acquisition, which were recorded within Selling, general and administrative expense in the consolidated statement of operations.

The aggregate acquisition date fair value of consideration for the Highline Acquisition totaled \$35.0 million, net of cash acquired of \$3.6 million and net working capital deficiency of \$0.5 million.

The following table summarizes the allocation of the aggregate purchase price of the Highline Acquisition (in thousands):

Cash	\$	3,601
Accounts receivable		1,743
Prepaid expenses and other current assets		778
Accounts payable		(1,124)
Accrued expenses		(31)
Other current liabilities		(3,129)
Fair value of identifiable net assets acquired		1,838
Goodwill		26,062
Trade names		8,000
Customer relationships		2,750
Net intangible assets		36,812
Total Acquisition Price	\$	38,650

The excess of purchase consideration over the fair value of the net assets acquired was recorded as goodwill, which is primarily attributed to the assembled workforce of the acquired company and expected growth from vertical integration of Highline's clinical trial services. As the Highline Acquisition was a stock purchase, the related goodwill created as a result of the acquisition is not deductible for tax purposes. The trade names and customer relationships intangible assets were established with seven year and three year remaining useful lives, respectively.

AKESOgen

On December 9, 2019, in accordance with a stock purchase agreement, the Company purchased 100% of the issued and outstanding shares of capital stock of AKESOgen for \$30.3 million, with an adjustment for working capital. The transaction included a contingent consideration arrangement to transfer shares of non-voting common stock to the former owners with an acquisition date fair value of \$3.4 million, which the Company recognized under long-term liabilities. The consideration was to be paid out based on AKESOgen's 2020 revenue, with a maximum payout of 726,979 shares of non-voting common stock. On May 19, 2021, the Company entered into a settlement agreement with the former owners of AKESOgen related to the contingent consideration, whereby \$7.5 million was paid in cash and 145,466 shares of non-voting common stock were issued on December 9, 2022 and subsequently repurchased by the Company in January 2023.

4. BALANCE SHEET COMPONENTS

Property and Equipment, Net

The following summarizes property and equipment, net as of December 31, 2024 and 2023 (in thousands):

	December 31, 2024	December 31, 2023
Equipment	\$ 110,011	\$ 91,656
Leasehold improvements	46,809	42,433
Furniture and fixtures	6,633	6,633
Total property and equipment, gross	163,453	140,722
Less: accumulated depreciation	(105,397)	(79,041)
Property and equipment, net	<u>\$ 58,056</u>	<u>\$ 61,681</u>

Depreciation expense on property and equipment is classified as follows in the accompanying consolidated statements of operations for the years ended December 31, 2024, 2023 and 2022 (in thousands):

	Year Ended December 31,		
	2024	2023	2022
Cost of revenue, genomics	\$ 13,966	\$ 12,961	\$ 8,190
Cost of revenue, data and services	172	—	—
Research and development	—	—	1,371
Selling, general and administrative costs	12,218	8,318	7,133
Total depreciation	<u>\$ 26,356</u>	<u>\$ 21,279</u>	<u>\$ 16,694</u>

Accrued Expenses

Accrued expenses as of December 31, 2024 and 2023, consist of the following (in thousands):

	December 31, 2024	December 31, 2023
Accrued compensation and employee benefits	\$ 24,767	\$ 21,950
Accrued expenses	51,147	37,783
Accrued employer payroll tax related to stock-based compensation	24,439	—
Accrued cloud storage costs	21,394	13,921
Interest payable	8,660	8,863
Total accrued expenses	<u>\$ 130,407</u>	<u>\$ 82,517</u>

5. GOODWILL AND INTANGIBLES

Goodwill represents the excess of the purchase price in a business combination over the fair value of net tangible and intangible assets acquired. As disclosed in Note 2, Goodwill is tested for impairment at least annually as of October 1st. The changes in the carrying amount of goodwill for the years ended December 31, 2024 and 2023 were as follows (in thousands):

Balance as of December 31, 2022	\$	53,100
Goodwill related to business combinations	\$	20,249
Foreign exchange rate adjustment		5
Balance as of December 31, 2023	\$	73,354
Foreign exchange rate adjustment		(11)
Balance as of December 31, 2024	\$	73,343

There was no goodwill impairment for the years ended December 31, 2024, 2023 and 2022.

Intangible assets are initially recorded at their acquisition cost, or fair value if acquired as part of a business combination and amortized over their estimated useful lives. Intangible assets consist of a website domain, customer relationships and trade names acquired as part of a business combination, and licensed data acquired by entering into research collaboration agreements. In each license arrangement, the other party provides the Company with specified data, which currently is used primarily for research and development purposes but may also be licensed to third parties. The asset represents the Company's right to use these datasets. The Company also recognizes a liability for the associated minimum payments that are presented within accrued data licensing fees.

During the years ended December 31, 2024, 2023 and 2022, the Company recorded \$0.7 million, \$3.8 million and \$2.1 million, respectively, in licensed data related to de-identified data obtained through various agreements.

In January 2023, the Company amended a data licensing agreement, which reduced the future data license payments the Company owes in exchange for waiving exclusivity rights on the licensed data. The Company remeasured the related licensed data intangible asset to fair value, which resulted in an impairment of \$7.4 million recorded in Research and development during the year ended December 31, 2023. A \$7.9 million gain resulting from the related reduction of future data license payments was also recorded in Research and development during the year ended December 31, 2023. The impairment resulted in a reduction of \$40.1 million and \$32.7 million to gross intangible assets and accumulated amortization, respectively. There were no impairment charges recognized related to intangible assets during the year ended December 31, 2024.

The following table summarizes intangible assets as of December 31, 2024 and 2023 (in thousands):

	December 31, 2024			December 31, 2023		
	Gross Amount	Accumulated Amortization	Net	Gross Amount	Accumulated Amortization	Net
Customer relationships	\$ 20,550	\$ 15,606	\$ 4,944	\$ 20,550	\$ 12,219	\$ 8,331
Licensed data	20,010	17,828	2,182	19,321	11,469	7,852
Website domain	19	—	19	19	—	19
Trade names	8,000	3,429	4,571	8,000	2,286	5,714
	<u>\$ 48,579</u>	<u>\$ 36,863</u>	<u>\$ 11,716</u>	<u>\$ 47,890</u>	<u>\$ 25,974</u>	<u>\$ 21,916</u>

Amortization of intangible assets is recognized using the straight-line method over their estimated useful lives, which range from three to seven years. Amortization expense was \$10.9 million, \$11.9 million and \$13.3 million for the years ended December 31, 2024, 2023 and 2022, respectively, and is recorded in cost of revenues, research and development, or selling, general and administrative expense, depending on use of the asset. The weighted average life of the Company's intangibles is approximately six years.

As of December 31, 2024, the estimated future amortization expense related to intangible assets is as follows (in thousands):

2025	\$	4,784
2026		4,480
2027		1,290
2028		1,143
2029 and thereafter		—
Total	<u>\$</u>	<u>11,697</u>

6. JOINT VENTURE

SB Tempus

On May 18, 2024, the Company entered into a Joint Venture Agreement (the "Joint Venture Agreement") with SoftBank Group Corporation ("SoftBank") to form SB Tempus Corp. (the "Joint Venture" or "SB Tempus"). The Joint Venture closed on July 18, 2024, at which time the Company and SoftBank each contributed ¥15 billion (\$95.2 million). Each party received 50% of SB Tempus's outstanding capital stock and board seats. SB Tempus will engage in certain business activities in Japan similar to those conducted by the Company in the United States, including performing clinical sequencing, organizing patient data, and building a real world data business in Japan.

SB Tempus is considered a VIE as the Company does not have sufficient equity at risk and is entitled to receive residual returns of SB Tempus through its equity stake. Decisions that significantly impact the economic performance of SB Tempus require the consent of both the Company and SoftBank. Therefore, the Company concluded that neither party is deemed to have predominant control over SB Tempus, and the Company is not considered to be the primary beneficiary.

The Company's maximum exposure to loss from SB Tempus is equal to the carrying value of the Company's investment. As of December 31, 2024, the carrying value of the investment in SB Tempus was \$91.5 million. The Company's share of losses from SB Tempus are recorded in losses from equity method investments.

In connection with entering into the Joint Venture Agreement, the Company entered into a Data License Agreement (the "Data License Agreement"), under which the Company granted SB Tempus a limited, non-exclusive, transferable license with a limited right to sublicense certain de-identified data for certain specified uses solely in Japan. Under the Data License Agreement, SB Tempus paid the Company ¥7.5 billion (\$47.9 million) in exchange for the license to an initial records batch, which is recorded in deferred revenue and will be recognized into data and services revenue over the term of the license subscription which ends on March 31, 2026.

In addition, on July 18, 2024, the Company and SB Tempus entered into an Intellectual Property Agreement (the "IP License Agreement") under which SB Tempus paid the Company an additional ¥7.5 billion (\$47.9 million) in exchange for a non-exclusive license to certain of the Company's technologies for certain specified uses solely in Japan. The payment is recorded in deferred other income and will be amortized into Other income (expense), net over three years, based on the estimated time for SB Tempus' systems and technologies to diverge from the Company's. For the year ended December 31, 2024, the Company recognized \$8.0 million related to the IP License Agreement.

7. COMMITMENTS AND CONTINGENCIES

Purchase Obligations

The Company has entered into non-cancelable arrangements with third parties, primarily related to data licenses and cloud computing services. Where applicable, the Company calculates its obligation based on termination fees that can be paid to exit the contract. The data license agreements include committed payments for access to the data and additional payments contingent on the commercialization of such data. For the years ended December 31, 2024, 2023 and 2022, the Company recognized data licensing and cloud computing expenses of \$40.6 million, \$33.7 million and \$31.1 million, respectively, related to non-cancelable arrangements.

As of December 31, 2024, future payments under these contractual obligations were as follows (in thousands):

2025	\$	43,080
2026		26,008
2027		3,829
2028 and thereafter		—
Total purchase obligations		72,917
Less: Current portion of purchase obligations		43,080
Total long-term purchase obligations	\$	29,837

Legal Matters

From time to time in the normal course of business, the Company may be subject to various legal matters such as threatened or pending claims or proceedings. There were no material such matters as of and for the years ended December 31, 2024, 2023 and 2022.

8. LEASES

The Company has entered into various non-cancelable operating lease agreements, primarily for the rent of office and lab space, with expirations at various dates through 2032. The Company has also acquired portions of its equipment under finance lease arrangements, formerly referred to as capital leases under ASC 840, with expirations between 2022 and 2023. Lease cost is recognized on a straight-line basis over the lease term. Variable lease costs, which include items such as real estate taxes, common area maintenance, utilities, and storage are not included in the calculation of the right-of-use assets and are recognized as incurred.

The components of total lease costs for the years ended December 31, 2024, 2023 and 2022 are as follows (in thousands):

	Year Ended December 31,		
	2024	2023	2022
Operating lease cost	\$ 6,047	\$ 6,760	\$ 6,426
Variable lease cost	6,067	4,641	4,732
Short-term lease costs	688	441	139
Sublease income	(90)	(52)	(191)
Finance lease cost			
Amortization of right-of-use assets	—	283	381
Interest on lease liabilities	—	5	21
Total lease costs	\$ 12,712	\$ 12,078	\$ 11,508

Lease term and discount rate as of December 31, 2024 and 2023 are as follows:

	December 31, 2024	December 31, 2023
Weighted-average remaining lease term (in years)		
Operating leases	5.1	5.9
Weighted-average discount rate		
Operating leases	6.8%	6.9%

As of December 31, 2024, the future payments under operating leases for each of the next five years and thereafter are as follows (in thousands):

	Operating Leases
2025	\$ 8,446
2026	7,158
2027	7,254
2028	7,596
2029	4,324
Thereafter	4,211
Total minimum lease payments	38,989
Less: Amount representing interest	6,331
Present value of net minimum lease payments	32,658
Less: Current portion of lease liabilities	6,459
Total long-term lease liabilities	\$ 26,199

9. STOCKHOLDERS' EQUITY

Common Stock

Prior to the IPO, the Company had authorized two classes of common stock, voting and non-voting. In March 2021, the Company amended its certificate of incorporation to bifurcate the voting common stock into two classes, Class A common stock and Class B common stock. As of December 31, 2023, the Company had authorized 200,228,024 shares of Class A common stock, 5,374,899 shares of Class B common stock, and 66,946,627 shares of non-voting common stock. In April 2024, the Company increased the number of authorized shares of Class A common stock to 204,590,500 in conjunction with the Series G-5 Preferred stock financing (see Note 10, Redeemable Convertible Preferred Stock). In connection with the IPO, the Restated Certificate became effective, which authorized 1,000,000,000 shares of Class A common stock, 5,500,000 shares of Class B common stock, and 20,000,000 shares of preferred stock.

Class A common stock and Class B common stock are collectively referred to as "Common Stock" throughout the notes to these consolidated financial statements unless otherwise noted.

The rights of the holders of Class A common stock and Class B common stock are identical, except with respect to voting. Each share of Class A common stock is entitled to one vote per share and each share of Class B common stock is entitled to thirty votes per share. Prior to the IPO, the Company also had shares of non-voting common stock authorized and outstanding, which were not entitled to any voting rights. Following the IPO, no shares of non-voting common stock are authorized or outstanding.

Each share of Class B common stock is convertible at any time at the option of the holder into one share of Class A common stock.

Under the Restated Certificate, any holder's shares of Class B common stock will convert automatically into Class A common stock, on a one-to-one basis, upon certain circumstances, including: (1) the sale or transfer of such shares of Class B common stock, other than to a "controlled entity," which is any person or entity which, directly or indirectly, is controlled by, or is under common control with, the holder of such shares of Class B common stock; (2) the trading day that is no less than 90 days and no more than 150 days following the twenty-year anniversary of the filing of the Restated Certificate, which was filed with the Secretary of State of the State of Delaware on June 17, 2024; (3) the date on which Mr. Lefkofsky is no longer providing services to the Company as an executive officer or member of the board of directors; and (4) the trading day that is no less than 90 days and no more than 150 days following the date that Mr. Lefkofsky and his controlled entities hold, in the aggregate, fewer than 10,000,000 shares of the Company's capital stock (as adjusted for stock splits, stock dividends, combinations, subdivisions and recapitalizations).

Once transferred and converted into Class A common stock, the Class B common stock may not be reissued.

The Company issues stock-based awards to its employees in the form of stock options, restricted stock units, performance stock units and restricted stock, all of which have the potential to increase the outstanding shares of common stock in the future (see Note 11, Stock-Based Compensation).

Upon any liquidation, dissolution, or winding-up, the holders of Class A common stock and Class B common stock will be entitled to share equally, identically, and ratably in all assets remaining after the payment of any liabilities, liquidation preferences, and accrued or declared but unpaid dividends, if any, with respect to any outstanding preferred stock, unless a different treatment is approved by the affirmative vote of the holders of a majority of the outstanding shares of such affected class, voting separately as a class.

Common Stock Warrant

In connection with the MSA with AstraZeneca, the Company granted AstraZeneca warrants to purchase \$100 million in shares of the Company's Class A common stock at an exercise price equal to the IPO price of \$37.00 per share. The number of shares of Class A common stock issuable upon exercise of the warrant is 2,702,703, based on the IPO price of \$37.00 per share.

The warrant was automatically cancelled and terminated for no consideration as AstraZeneca declined to extend its financial commitment before December 31, 2024. See Note 15 for further information.

On December 8, 2023, the Company issued Allen a warrant to purchase 150,000 shares of the Company's Class A common stock at a price per share of \$10.00. The warrant was issued as compensation for Allen's assistance with the issuance of the Company's Series G-4 preferred stock, and as such has been treated as an issuance cost and presented net of proceeds from Series G-4 preferred stock in Convertible redeemable preferred stock on the Company's consolidated balance sheet. In connection with the IPO, the Company issued 109,459 shares of Class A common stock upon the net exercise of the warrant.

Treasury Stock

In January 2023, the Company repurchased 145,466 shares of non-voting common stock previously issued to the former owners of AKESOgen, Inc., which the Company acquired in December 2019. These shares were accounted for as treasury stock. The Company records treasury stock at cost.

10. REDEEMABLE CONVERTIBLE PREFERRED STOCK

In April 2022, the Company issued 1,614,114 shares of Series G-3 convertible preferred stock ("Series G-3 Preferred") for aggregate proceeds of \$92.5 million. Each share has a par value of \$0.0001. The Company will use the proceeds for working capital and general corporate purposes.

In January 2023, the Company issued 47,781 shares of Series G-3 convertible preferred stock as payment of paid-in-kind dividends.

In October 2023, the Company issued 785,245 shares of Series G-4 convertible preferred stock ("Series G-4 Preferred") for aggregate proceeds of \$45.0 million. Each share had a par value of \$0.0001. Under the terms of Series G-4 Preferred, holders receive an amount equal to 5% of the per share original issue price for each share of Series G-4 Preferred (the "G-4 Special Payment"), in the event that following an IPO, the average of the last trading price on each trading day during the ten day trading period beginning on the first day of trading of the Company's Class A common stock is less than 110% of the price per share of Class A common stock sold in the IPO. Following the Company's IPO, the average ten day trading price was less than 110% of the price per share of Class A common stock sold in the IPO. As such, holders of Series G-4 Preferred were owed an aggregate payment of \$2.3 million, which was made in July 2024.

In January 2024, the Company issued 66,465 shares of Series G-3 convertible preferred stock and 10,666 shares of Series G-4 convertible preferred stock as payment of paid-in-kind dividends.

In April 2024, the Company issued 3,489,981 shares of Series G-5 convertible preferred stock ("Series G-5 Preferred") for aggregate proceeds of \$200.0 million. Each share has a par value of \$0.0001. The Company will use the proceeds for working capital and general corporate purposes.

In connection with the IPO, all of the Company's then-outstanding shares of redeemable convertible preferred stock and accrued but unpaid dividends were automatically converted into 71,976,178 shares of Class A voting common stock and 5,043,789 shares of Class B voting common stock.

Redeemable convertible preferred stock outstanding as of December 31, 2023 consisted of the following (in thousands, except share amounts):

Series Preferred	Year Issued	As of December 31, 2023			
		Shares		Liquidation Amount	Carrying Value
		Authorized	Outstanding		
Series A	2015	10,000,000	10,000,000	\$ 10,500	\$ 10,000
Series B	2016	5,374,899	5,374,899	10,500	10,000
Series B-1	2016	2,500,000	2,500,000	10,500	10,000
Series B-2	2017	4,191,173	4,191,173	31,500	30,000
Series C	2017	9,779,403	9,779,403	86,757	70,000
Series D	2018	8,534,330	8,534,330	105,107	104,145
Series E	2018	6,630,905	6,630,905	151,621	151,621
Series F	2019	8,077,674	8,077,674	261,722	261,722
Series G	2020	2,537,290	2,537,290	119,928	119,928
Series G-2*	2020/2021	3,453,139	3,453,139	197,889	197,889
Series G-3**	2022/2023	4,362,476	1,661,895	98,891	95,238
Series G-4**	2023	4,362,476	785,245	45,514	45,000
Total convertible preferred stock		<u>69,803,765</u>	<u>63,525,953</u>	<u>1,130,429</u>	<u>1,105,543</u>

* Excludes amounts related to the conversion of convertible note

** Excludes amounts related to embedded conversion features

11. STOCK-BASED COMPENSATION

2015 Stock Plan

In 2015, the Company adopted the 2015 Plan, which has been amended and restated numerous times to increase the aggregate shares authorized to be issued to employees, consultants, and directors of the Company. As of December 31, 2023, there were 28,115,750 shares authorized under the 2015 Plan.

On January 18, 2023, the Company approved a two-year extension of the expiration date of RSUs for then-current employees whose RSUs would otherwise expire in 2023 or 2024. The Company accounted for the extension as a stock compensation modification, which resulted in an increase in unrecognized compensation cost of \$35.3 million at the time the extension was approved and an additional \$12.2 million as the extensions occurred. The RSUs approved for the two-year extension were fully vested as of the IPO date. As such, the Company recognized the full impact of the expiration extension in stock-based compensation in the three months ended June 30, 2024.

On July 18, 2023, the Company approved the removal of the market condition for 5,898,596 outstanding PSUs. The Company accounted for this as a stock compensation modification. Subsequent to the modification, these units are treated as RSUs as the terms are consistent with the Company's existing RSUs. The modification resulted in a decrease in total unrecognized compensation cost of \$19.3 million.

After the IPO, no further grants will be made under the 2015 Stock Plan.

2024 Equity Incentive Plan

In February 2024, the Company's board of directors adopted, and in April 2024, the Company's stockholders approved, the 2024 Equity Incentive Plan (the "2024 Plan"), which became effective in connection with the IPO in June 2024. The 2024 Plan provides for the grant of incentive stock options ("ISOs"), nonstatutory stock options, stock appreciation rights, RSUs, restricted stock unit awards ("RSAs"), performance-based awards ("PSUs") and other awards. The maximum number of shares of Class A common stock that may be issued under the 2024 Plan is 7,430,000 shares of the Company's Class A common stock and will automatically increase on January 1 of each year, beginning on January 1, 2025 and continuing through and including January 1, 2034 in an amount equal to either (i) a number of shares of the Company's Class A common stock (the "Evergreen Increase"), such that the sum of (x) the remaining number of shares available under the 2024 Plan and (y) the Evergreen Increase is equal to 5% of the total number of shares of common stock (both Class A and Class B) outstanding on December 31 of the preceding calendar year, or (ii) a lesser number of shares determined by the Company's board of directors prior to the applicable January 1. The maximum number of shares that may be issued upon the exercise of ISOs under the 2024 Plan is 22,290,000 shares.

Restricted Stock Units

The majority of RSUs vest over a period of three to five years, with a cliff vest after one year and ratable quarterly vesting thereafter. RSUs granted prior to the IPO were also subject to liquidity event vesting condition, as defined in the grant agreement, which was satisfied in connection with the IPO.

The table below summarizes restricted stock unit activity for the year ended December 31, 2024:

	Restricted Stock Units	Weighted - Average Grant Date Fair Value
Unvested at December 31, 2023	20,788,500	\$ 26.47
Granted	4,020,190	\$ 39.75
Vested and settled	(12,143,140)	\$ 19.95
Vested and not yet settled	(4,772,362)	\$ 37.87
Forfeited	(871,838)	\$ 35.97
Expired	(147,376)	\$ 0.28
Unvested at December 31, 2024	6,873,974	\$ 38.23

Stock-based compensation is classified as follows in the accompanying consolidated statements of operations for the years ended December 31, 2024, 2023 and 2022 (in thousands):

	Year Ended December 31,		
	2024	2023	2022
Cost of revenues, genomics	\$ 13,625	\$ —	\$ —
Cost of revenues, data and services	8,530	—	—
Technology research and development	58,473	—	—
Research and development	47,638	—	—
Selling, general and administrative	405,872	—	—
Total stock-based compensation	<u>\$ 534,138</u>	<u>\$ —</u>	<u>\$ —</u>

As of December 31, 2024, there was \$151.6 million of unrecognized stock compensation expense relating to RSUs, respectively.

Stock Options

Options granted pursuant to the Plan vest on varying schedules, based upon individual agreements. The fair value of each option granted is estimated on the date of grant using the Black-Scholes option-pricing model. The estimated life for the stock options was based on the term of the agreement. The risk-free interest rate is based on the rate for a U.S. government security with the same estimated life at the time of the option grant and the stock purchase rights.

	Number of Options	Exercise Price Ranges	Weighted-Average Exercise Price
Outstanding at December 31, 2023	210,000	\$ 0.85	\$ 0.85
Granted	—	\$ —	\$ —
Exercised	(210,000)	\$ 0.85	\$ 0.85
Forfeited	—	\$ —	\$ —
Outstanding at December 31, 2024	<u>—</u>	<u>\$ —</u>	<u>\$ —</u>
Options exercisable at December 31, 2024	<u>—</u>	<u>\$ —</u>	<u>\$ —</u>

The 210,000 stock options were exercised in 2024. The Company issued 205,847 shares of Class A common stock upon the net exercise of the stock option. The outstanding stock options were fully expensed prior to 2020. As such, no stock compensation expense relating to stock options was recorded in the years ended December 31, 2024, 2023 and 2022.

Restricted Stock Awards

The Company has previously granted restricted stock awards to employees. Compensation expense on those awards was recognized on a straight-line basis over the requisite service periods of the awards, typically three to four years.

	Restricted	Unrestricted	Total	Weighted - Average Grant Date Fair Value
Balance at December 31, 2023	—	4,250,000	4,250,000	\$ 0.42
Converted into Class A voting common stock	—	(4,250,000)	(4,250,000)	\$ 0.42
Balance at December 31, 2024	<u>—</u>	<u>—</u>	<u>—</u>	<u>\$ —</u>

No compensation cost was recognized for the years ended December 31, 2024, 2023 and 2022, respectively.

12. DEBT

Term Loan Facility

On September 22, 2022, the Company entered into a Credit Agreement with Ares Capital Corporation (“Ares”) for a senior secured loan (the “Term Loan Facility”) in the amount of \$175 million, less original issue discount of \$4.4 million and deferred financing fees of \$2.6 million. On April 25, 2023, the Company entered into an amendment to the Credit Agreement, which was accounted for as a debt modification. The amendment to the Credit Agreement increased the Term Loan Facility by an aggregate principal amount of \$50 million, less original issue discount of \$1.3 million and increased the interest rate on the Term Loan Facility by 25 basis points. On October 11, 2023, the Company signed a second amendment to its Credit Agreement with Ares which provided an additional \$35.0 million in term debt. The Company received \$34.1 million in cash, which is the aggregate principal amount of \$35.0 million less original issue discount of \$0.9 million. Terms of the second amendment are consistent with existing terms of the Credit Agreement. The proceeds of the Term Loan Facility will be used for working capital and general corporate purposes, to finance growth initiatives, to pay for operating expenses, and to pay the related transaction costs. The Term Loan Facility is due at maturity on September 22, 2027 and is subject to quarterly interest payments for Base Rate Loans and at the end of the applicable interest rate period for Secured Overnight Financing Rate (“SOFR”) Loans.

After the first three months from the effective date, each quarter, the Company has the option to convert the borrowing type to either a Base Rate Borrowing, which bears interest based on a Base Rate, defined as the greatest of the (a) the “Prime Rate” appearing the “Money Rates” section of the Wall Street Journal or another national publication selected by the Agent, (b) the Federal Funds Rate plus 0.50%, (c) Term SOFR for a one-month tenor in effect on such day plus 1.00% in each instance as of such day and (d) 2.00%, or a SOFR Borrowing, which bears interest based on Term SOFR. Additionally, the Company may make either a PIK election or a Cash election. Based on these elections, the Term Loan Facility will bear interest at one of the following rates:

- (i) the sum of the Base Rate plus an Applicable Rate of 4% per annum plus 3.25% per annum paid in-kind by adding the accrued interest to the outstanding principal balance on each interest payment date
- (ii) the Base Rate plus an Applicable Rate of 6.25% per annum
- (iii) the sum of the Term SOFR for the interest period plus an Applicable rate of 5% per annum plus 3.25% per annum paid in-kind by adding the accrued interest to the outstanding principal balance on each interest payment date
- (iv) the Term SOFR for the interest period in effect plus the Applicable Rate of 7.25% per annum

In addition, the Term Loan Facility contains customary representations and warranties, financial and other covenants, and events of default, including but not limited to, limitations on earnout, milestone, or deferred purchase obligations, dividends on preferred stock and stock repurchases, cash investments, and acquisitions. The Company is required to maintain a minimum liquidity of at least \$25 million and maintain specified amounts of consolidated revenues for the trailing twelve-month period ending on the last day of each fiscal quarter. Minimum consolidated revenues increase each quarter. For the years ended December 31, 2025 and thereafter, the Company is required to generate consolidated revenues of \$594.1 million. The Company was in compliance with all covenants of the Credit Agreement as of December 31, 2024.

All obligations under the Term Loan Facility are guaranteed by the Company and secured by substantially all of the assets of the Company.

The original issue discount of \$6.5 million and deferred financing fees of \$2.6 million are amortized over the term of the underlying debt and unamortized amounts have been offset against long-term debt in the consolidated balance sheets. As of December 31, 2024 and 2023, the unamortized original issue discount was \$3.8 million and \$5.1 million, respectively, and the unamortized deferred financing fees were \$1.4 million and \$1.9 million, respectively.

Through December 31, 2024, the Company has not made any principal repayments on the Term Loan Facility.

The Company recognized interest expense of \$36.6 million, \$28.9 million and \$5.1 million related to the Term Loan Facility, which represented an effective interest rate of 13.6%, 13.2% and 2.9% during the years ended December 31, 2024, 2023 and 2022, respectively.

Convertible Promissory Note

On June 22, 2020, in connection with entry into an agreement for use of Google LLC's, or Google's, Google Cloud Platform, the Company issued Google a convertible promissory note, or the Note, in the original principal amount of \$330.0 million. On November 19, 2020, in connection with Series G-2 convertible preferred stock financing, the Company issued Google \$80 million of Series G-2 preferred stock, at a 10% discount to the purchase price per share in such financing, in partial satisfaction of the outstanding principal amount under the Note, and the Company amended and restated the terms of the Note.

The amended and restated Note, or the Amended Note, has a principal amount of \$250.0 million, and bears interest at the rate set forth therein. The principal amount is automatically reduced each year based on a formula taking into account the aggregate value of the Google Cloud Platform services used by the Company. The Company accounts for the principal reductions as an offset to its cloud and compute spend within selling, general and administrative in its consolidated statements of operations and comprehensive loss. The outstanding principal and accrued interest under the Amended Note, or the Outstanding Amount, is due and payable on the earlier of (1) March 22, 2026, which is the maturity date of the Amended Note, (2) upon the occurrence and during the continuance of an event of default, and (3) upon the occurrence of an acceleration event, which includes any termination by the Company of its Google Cloud Platform agreement. The Company generally may not prepay the Outstanding Amount, except that the Company may, at its option, prepay the Outstanding Amount in an amount such that the principal amount remaining outstanding after such repayment is \$150.0 million.

If the Amended Note is outstanding at the maturity date, Google may, at its option, convert the then outstanding principal amount and interest accrued under the Amended Note into a number of shares of the Company's Class A common stock equal to the quotient obtained by dividing (1) the Outstanding Amount on the maturity date, by (2) the average of the last trading price on each trading day during the twenty day period ending immediately prior to the maturity date.

The Company concluded that one of the conversion features meets the definition of an embedded derivative that is required to be accounted for as a separate unit of accounting. The fair value of the embedded derivative is not material and was therefore not bifurcated. As such, upon issuance of the Note the Company recorded a promissory note of \$330.0 million. The company recognized interest expense of \$15.1 million, \$15.8 million and \$16.4 million during the years ended December 31, 2024, 2023 and 2022, respectively. Accrued interest on the Amended Note is recorded as Interest Payable within long-term liabilities on the consolidated balance sheet.

13. NET LOSS PER SHARE ATTRIBUTABLE TO COMMON STOCKHOLDERS

Basic net loss per share is calculated by dividing the net loss by the weighted average number of outstanding shares of Common Stock each period. The Company's Class A common stock and Class B common stock share equally in distributed and undistributed earnings; therefore, no allocation to participating securities or dilutive securities is performed. Diluted net loss per share is calculated by giving effect to all potential dilutive Common Stock equivalents, which includes stock options, RSUs, RSAs, PSUs, and preferred stock. Because the Company incurred net losses each period, the basic and diluted calculations are the same. The Company used the if-converted method to calculate diluted EPS. As the Company had net losses in the years ended December 31, 2024, 2023 and 2022, respectively, all potentially dilutive common stock equivalents have been excluded from the calculation of diluted net loss per share attributable to common stockholders as their effect is anti-dilutive.

The following table presents the calculation for basic and diluted net loss per share (in thousands, except share and per share data):

	Year Ended December 31,		
	2024	2023	2022
Numerator:			
Net loss	\$ (705,809)	\$ (214,118)	\$ (289,811)
Accretion of convertible preferred stock to redemption value	—	(4,338)	(301)
Dividends on Series A, B, B-1, B-2, C, D, E, F, G, G-3, and G-4 preferred shares	(39,347)	(44,497)	(40,975)
Cumulative undeclared dividends on Series C preferred shares	(1,174)	(3,011)	(2,841)
Net loss attributable to common stockholders	<u>\$ (746,330)</u>	<u>\$ (265,964)</u>	<u>\$ (333,928)</u>
Denominator:			
Weighted-average common shares outstanding, basic and diluted	<u>119,849</u>	<u>63,306</u>	<u>63,032</u>
Net loss per share attributable to common stockholders, basic and diluted	<u><u>\$ (6.23)</u></u>	<u><u>\$ (4.20)</u></u>	<u><u>\$ (5.30)</u></u>

The following outstanding shares of common stock equivalents were excluded from the calculation of diluted net loss per share for each period, as the impact of including them would have been anti-dilutive. As disclosed in Note 9, the Company issued a warrant for \$100 million in shares of the Company's Class A common stock. As per the terms of the warrant, potentially dilutive shares are based on the latest equity financing price. The warrant was terminated for no consideration on December 31, 2024.

	As of December 31,		
	2024	2023	2022
Stock options outstanding	—	210,000	210,000
Convertible preferred stock	—	63,525,953	62,692,927
AstraZeneca warrant	—	1,744,991	1,744,991
Mpirik holdback liability	—	8,724	—
SEngine holdback liability	—	41,436	—
Unvested RSUs	6,873,974	—	—
Allen & Company warrant	—	150,000	—
Total potentially dilutive shares	<u><u>6,873,974</u></u>	<u><u>65,681,104</u></u>	<u><u>64,647,918</u></u>

As disclosed in Note 11, the RSUs issued prior to the IPO include a liquidity event performance condition prior to vesting. As such, as of December 31, 2023 and 2022, these are treated as contingently issuable shares and are excluded from potentially dilutive shares as the liquidity event performance condition was not yet satisfied. As the liquidity event performance condition was satisfied upon completion of the IPO, as of December 31, 2024, these shares are included in potentially dilutive shares.

As disclosed in Note 12, contingent upon certain financing events, the Amended Note will be converted to shares at the holder's option, based on the amount outstanding at the maturity date, which is subject to reduction based on services used by us prior to the maturity date. As such, these are treated as contingently issuable shares and will be excluded from potential dilutive impact.

As disclosed in Note 10, the Company's Series G-3 Preferred, Series G-4 Preferred and Series G-5 Preferred contain embedded conversion features resulted in the issuance of additional shares of Class A common stock upon completion of the IPO. The number of shares issued related to these features was dependent upon the IPO price. As such, prior to the IPO, these are treated as contingently issuable shares. Subsequent to the completion of the IPO in June 2024, the additional shares of Class A common stock are included in the weighted-average common shares outstanding.

14. INCOME TAXES

Deferred income taxes consist of the following as of December 31, 2024 and 2023 (in thousands):

	As of December 31,	
	2024	2023
Deferred Income Tax Assets		
Net Operating Loss Carryforwards	\$ 308,669	\$ 195,378
IRC §163(j) Interest Expense Limitation Carryover	29,239	18,785
Lease Liability	7,997	9,496
Research and Development	118,649	68,411
Excess of Tax Basis over Book Basis Fixed Assets	4,696	2,473
Deferred Revenue	19,708	10,457
Revenue Reserve Liability	2,812	3,748
Stock Compensation	26,441	40
Other	1,077	4,739
	<u>\$ 519,288</u>	<u>\$ 313,527</u>
Less Valuation Allowance	(503,071)	(297,294)
	<u>\$ 16,217</u>	<u>\$ 16,233</u>
Deferred Income Tax Liabilities		
Unrealized Gain/Loss on Marketable Equity Securities	(3,878)	(2,420)
Right of Use Asset	(3,615)	(5,067)
Warrant Contract Asset	(7,697)	(7,513)
Other	(1,261)	(1,356)
	<u>\$ (16,451)</u>	<u>\$ (16,356)</u>
Net Deferred Income Tax Asset (Liability)	<u>\$ (234)</u>	<u>\$ (123)</u>

The provision for income taxes consists of the following for the years ended December 31, 2024, 2023 and 2022 (in thousands):

	Year Ended December 31,		
	2024	2023	2022
Current tax expense (benefit)			
Federal	\$ 0	\$ —	\$ —
State	(33)	13	66
Foreign	188	152	—
Total	<u>\$ 155</u>	<u>\$ 165</u>	<u>\$ 66</u>
Deferred tax expense (benefit)			
Federal	(175,070)	(45,738)	(59,141)
State	(30,450)	(7,017)	(7,686)
Foreign	(146)	—	—
Total	<u>(205,666)</u>	<u>(52,755)</u>	<u>(66,827)</u>
Change in valuation allowance	205,777	52,878	66,827
Total income tax expense (benefit)	<u>\$ 266</u>	<u>\$ 288</u>	<u>\$ 66</u>

The components of income before income taxes as follows (in thousands):

	Year Ended December 31,		
	2024	2023	2022
Domestic	\$ (701,648)	\$ (213,522)	\$ (289,556)
Foreign	339	(243)	398

A reconciliation of the difference between the federal statutory rate and the effective income tax rate as a percentage of income before taxes for the years ended December 31, 2024, 2023 and 2022:

	Year Ended December 31,		
	2024	2023	2022
Federal Statutory Tax Rate	21.00%	21.00%	21.00%
State Statutory Tax Rate	4.35%	3.28%	2.64%
Foreign	0.00%	(0.09%)	0.03%
Stock Compensation	5.60%	0.00%	0.00%
Officer Compensation	(1.46%)	0.00%	0.00%
Other Permanent Differences	(0.17%)	0.47%	(0.29%)
Other	(0.02%)	(0.06%)	(0.29%)
Change in Valuation Allowance	(29.34%)	(24.74%)	(23.11%)
Total	(0.04%)	(0.14%)	(0.02%)

Net change in valuation allowance as follows (in thousands):

	Year Ended December 31,		
	2024	2023	2022
Valuation Allowance, beginning of year	\$ 297,294	\$ 244,064	\$ 161,749
Charges	205,777	52,878	66,827
Purchase accounting adjustments	—	352	15,488
Valuation Allowance, end of year	\$ 503,071	\$ 297,294	\$ 244,064

For the year ended December 31, 2024, the Company recognized stock-based compensation windfall of \$46.0 million (tax-effected).

The Company's income tax expense as recorded in the financial statements differs from the benefit computed by applying statutory tax rates to net loss before income taxes due to permanent differences related to the deductibility of certain expenses and the valuation allowance. Current income tax expense for the years ended December 31, 2024, 2023 and 2022, related to state and foreign expense was not material.

As of December 31, 2024 the Company had federal net operating loss ("NOL") carry forwards of \$257.0 million (tax effected) and state NOL carry forwards of approximately \$51.7 million (tax effected), which may be available to offset future taxable income. The federal NOLs will begin to expire in 2037 and the state NOLs will begin to expire in 2028. A full valuation allowance has been recorded against the NOL carry forwards.

The Company files income tax returns in the U.S. federal jurisdiction and various state jurisdictions. Due to its operating loss carryforwards, the U.S. federal statute of limitations remains open for tax year 2016 and onward and the Company continues to be subject to examination by the Internal Revenue Service for tax years 2016 and later. The resolutions of any examinations are not expected to be material to these financial statements. As of December 31, 2024 and 2023, there are no penalties or accrued interest recorded in the consolidated financial statements. The calculation of the Company's tax obligations involves dealing with uncertainties in the application of complex tax laws and regulations. ASC 740, Income Taxes, provides that a tax benefit from an uncertain tax position may be recognized when it is more likely than not that the position will be sustained upon examination, including resolutions of any related appeals or litigation processes, on the basis of the technical merits. The Company has assessed its income tax positions and recorded tax benefits for all years subject to examination, based upon its evaluation of the facts, circumstances and information available at each period end. For those tax positions where the Company has determined there is a greater than 50% likelihood that a tax benefit will be sustained, the Company has recorded the largest amount of tax benefit that may potentially be realized upon ultimate settlement with a taxing authority that has full knowledge of all relevant information. For those income tax positions where it is determined there is less than 50% likelihood that a tax benefit will be sustained, no tax benefit has been recognized. The Company had no uncertain tax positions during the years ended December 31, 2024, 2023 and 2022.

The Company recognizes interest and, if applicable, penalties for any uncertain tax positions. Interest and penalties are recorded as a component of income tax expense. In the years ended December 31, 2024, 2023 and 2022, the Company did not have any accrued interest or penalties associated with any unrecognized tax benefits.

The Company does not provide for U.S. income taxes on unremitted earnings of foreign subsidiaries. Unremitted earnings of foreign subsidiaries were immaterial on December 31, 2024 and 2023.

15. FAIR VALUE MEASUREMENTS AND MARKETABLE EQUITY SECURITIES

Fair Value Measurements

The carrying amounts of financial instruments, including cash and cash equivalents, accounts receivable, finance lease obligations, minimum royalties, accounts payable, and accrued expenses approximate fair value due to the short maturity of these instruments. The carrying amounts of the finance lease obligations, and minimum royalties approximate fair value because the interest rates used fluctuate with market interest rates or the fixed rates are based on current rates offered to the Company for debt with similar terms and maturities.

The valuation methodologies used for the Company's assets and liabilities measured at fair value and their classification in the valuation hierarchy are summarized below:

Marketable equity securities—The Company holds marketable equity securities, all of which are publicly traded shares of common stock, which have quoted prices in active markets and are classified as short-term. The securities are measured at fair value each reporting period. The Company classifies the marketable equity securities as Level 1 as they are valued using quoted market prices at each reporting period.

Contingent consideration—The Company was subject to a contingent consideration arrangement to make a cash payment in an aggregate value of \$1.0 million, contingent upon Mpirik reaching a revenue target of \$1.5 million for the twelve-month period ended December 31, 2023. See Note 3, Business Combinations, for further discussion of that acquisition.

The Company is also subject to a contingent consideration arrangement of 35,000 additional shares of non-voting common stock in connection with the SEngine acquisition, the amount of which is determined based on the per share price of the Company's non-voting common stock in a liquidity event completed prior to December 31, 2027. The contingent consideration has an acquisition fair value date of \$0.8 million. See Note 3, Business Combinations for further discussion of that acquisition.

Liabilities for contingent consideration are measured at fair value each reporting period, with the acquisition date fair value included as part of the consideration transferred in the related business combination and subsequent changes in fair value recorded in earnings within operating expense on the consolidated statements of operations and comprehensive loss. The Company used a risk-neutral simulation model and option pricing framework to value the contingent consideration. Prior to the IPO, the Company classified the contingent consideration liabilities as Level 3 due to the lack of relevant observable market data over fair value inputs such as probability-weighting of payment outcomes. Subsequent to the IPO completed in June 2024, the Company classified the contingent consideration arrangement of up to 35,000 additional shares of non-voting common stock as Level 1 as the shares are valued using a quoted market price.

Warrant asset—The Company received warrants from Personalis, which were exercised in August 2024. The warrant assets are measured at fair value each reporting period using a Black-Scholes option pricing model, which takes into consideration the price and volatility of Personalis Class A common stock. Changes in fair value are recorded in Other income (expense), net. For the year ended December 31, 2024, the Company recognized a gain of \$18.3 million in Other income (expense), net due to the change in fair value of the warrant asset. The Company classified the warrant asset as Level 2 as they are valued using observable market prices of Personalis Class A common stock.

Warrant liability—As discussed in Note 9, the Company issued a \$100 million warrant to AstraZeneca. The warrant liability is measured at fair value each reporting period, using a Black-Scholes option pricing model. The Company classified the warrant liability as Level 3 due to the lack of relevant observable market data over fair value inputs such as the expected term. The warrant was terminated for no consideration on December 31, 2024. The Company recognized a net gain of \$39.1 million in Other income (expense), net associated with the warrant termination, as a result of the gain recognized from the warrant liability and warrant contract asset termination.

The Term Loan Facility and the Note were not recorded at fair value. The fair values of the Term Loan Facility and the Note approximated their carrying values as of December 31, 2024 and 2023. Estimates of the fair values of the Term Loan Facility and the Note are classified as Level 3 due to the lack of relevant observable market data over fair value inputs.

The following tables summarize assets and liabilities that are measured at fair value on a recurring basis as of December 31, 2024 and 2023 (in thousands):

		Fair Value Measurement at Reporting Date Using		
		Quoted Price in Active Market for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
	December 31, 2024			
Assets				
Marketable equity securities	\$ 107,309	\$ 107,309	\$ —	\$ —

		Fair Value Measurement at Reporting Date Using		
		Quoted Price in Active Market for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
	December 31, 2023			
Assets				
Marketable equity securities	\$ 31,807	\$ 31,807	\$ —	\$ —
Warrant asset	\$ 10,000	\$ —	\$ 10,000	\$ —
Liabilities				
Warrant liability	\$ 34,500	\$ —	\$ —	\$ 34,500
Contingent consideration	\$ 775	\$ —	\$ —	\$ 775

The following tables provide a reconciliation of the beginning and ending balances for the assets and liabilities measured at fair value using significant unobservable inputs (Level 3) (in thousands):

	Warrant Liability	Contingent Consideration
Balance at December 31, 2023	\$ 34,500	\$ 775
Change in fair value of warrant liability	42,400	—
Change in fair value of contingent consideration	—	194
Transfer out of Level 3	—	(969)
Warrant termination	(76,900)	—
Balance at December 31, 2024	\$ —	\$ —

	Warrant Liability	Contingent Consideration
Balance at December 31, 2022	\$ 42,500	\$ —
Contingent consideration from acquisitions	—	1,175
Change in fair value of warrant	(8,000)	—
Change in fair value of contingent consideration	—	(400)
Balance at December 31, 2023	\$ 34,500	\$ 775

	Warrant Liability	Contingent Consideration
Balance at December 31, 2021	\$ 37,800	\$ 8,005
Change in fair value of warrant liability	4,700	—
Change in fair value of contingent consideration	—	(3,701)
Settlement paid in non-voting common shares	—	(4,304)
Balance at December 31, 2022	\$ 42,500	\$ —

For the year ended December 31, 2024, the Company recognized a loss of \$42.4 million in Other income (expense), net due to the change in the fair value of warrant liability determined by Level 3 valuation techniques. For the year ended December 31, 2023, the Company recognized a gain of \$0.4 million in Selling, general and administrative expense due to the change in fair value of contingent consideration and gains of \$8.0 million due to changes in fair value of the warrant liability determined by Level 3 valuation techniques. For the year ended December 31, 2022, the Company recognized a gain of \$3.7 million in selling, general and administrative expense due to the change in fair value of contingent consideration and \$4.7 million in other income (expense), net due to the change in the fair value of warrant liability determined by level 3 valuation techniques.

Marketable Equity Securities

The Company holds marketable equity securities, which are all publicly traded shares of Recursion Pharmaceuticals, Inc. ("Recursion") Class A common stock and Personalis common stock.

Recursion shares were received as payment of accounts receivable. During the year ended December 31, 2024, the Company sold 1,725,902 shares of Recursion Class A common stock at a weighted average price of \$13.38 per share for aggregate proceeds of \$23.1 million.

As consideration for the Company's obligations to Personalis under the Commercialization and Reference Laboratory Agreement entered into with Personalis in November 2023, Personalis issued warrants to the Company to purchase up to an aggregate of 9,218,800 shares of Personalis' common stock, up to 4,609,400 of which were exercisable for cash at any time prior to December 31, 2024 at an exercise price of \$1.50 per share, and up to 4,609,400 of which were exercisable for cash at any time prior to December 31, 2025 at an exercise price of \$2.50 per share. In August 2024, the Company exercised the warrants in full at their respective exercise prices for an aggregate of 9,218,800 shares of Personalis common stock at an aggregate purchase price of \$18.4 million. Concurrently, the Company entered into an Investment Agreement with Personalis, pursuant to which the Company purchased an additional 3,500,000 shares of Personalis common stock for \$17.7 million. The Company owns less than 20% of Personalis' outstanding common stock and has no significant influence or control over Personalis.

Changes in fair value of marketable equity securities are recorded in earnings within Other income (expense), net on the consolidated statement of operations and comprehensive loss. The following summarizes the portion of unrealized gains recorded during the years ended December 31, 2024, 2023 and 2022 that relate to marketable equity securities held as of December 31, 2024, 2023 and 2022, respectively (in thousands).

	Year Ended December 31,		
	2024	2023	2022
Net gain during the period on marketable equity securities	\$ 12,110	\$ 9,807	\$ —
Less: Net gain recognized during the period on marketable equity securities sold during the period	(6,081)	—	—
Unrealized gain recognized during the period on marketable equity securities still held at the reporting date	<u>\$ 6,030</u>	<u>\$ 9,807</u>	<u>\$ —</u>

16. RELATED PARTIES

In 2018, the Company received \$1.5 million from a related party for assuming an office lease from such party. The liability is amortized through the right-of-use asset as a reduction of rent expense over the lease term. The Company had a remaining related liability of \$0.6 million and \$0.7 million as of December 31, 2024 and 2023, respectively. The Company subleases a portion of office space to this related party on a month-to-month basis. Sublease income received from the related party was insignificant for the years ended December 31, 2024, 2023 and 2022.

Strategic Investment

On August 19, 2021, the Company entered into a related party arrangement with Pathos AI, Inc. ("Pathos"), which was subsequently amended on February 12, 2024, for the purpose of furthering the commercialization efforts of drug development. Tempus received a warrant to purchase 23,456,790 shares, or approximately 15% of the current outstanding

equity in Pathos, for \$0.0125 per share. The warrant will automatically exercise upon a change of control (as defined therein) or upon an IPO of Pathos' securities. The Company also has an optional exercise election window during the last 10 days of the 20 year term of the warrant agreement. The master agreement provides for an initial term of five years, measured from February 2024, with a subsequent five-year renewal provision unless the agreement is terminated. Either party may terminate the agreement after the initial five-year term by prior written notice to the other party.

In addition, the Company has entered into various agreements with Pathos, encompassing access to the Company's Lens product, sequencing, clinical research organization and other data services. The Company has recognized \$4.5 million, \$0.7 million and \$0.6 million for the years ended December 31, 2024, 2023 and 2022, respectively.

As of December 31, 2024 and 2023, there was no amount due to related parties. As of December 31, 2024 and 2023, the amount due from related parties was \$4.3 million and less than \$0.1 million, respectively.

17. SUBSEQUENT EVENTS

Acquisition of Ambry Genetics Corporation

On November 4, 2024, the Company entered into a Securities Purchase Agreement (the "Purchase Agreement") with Realm IDX, Inc., a Delaware corporation (the "Seller") and the Seller's ultimate parent, Konica Minolta, Inc., a Japanese corporation, as guarantor, pursuant to which the Company agreed to purchase all of the outstanding shares of capital stock of Ambry Genetics Corporation, a Delaware corporation ("Ambry"), a leader in genetic testing that aims to improve health by understanding the relationship between genetics and disease (the "Acquisition"). Pursuant to the terms of the Purchase Agreement, consideration for the Acquisition consisted of \$375.0 million in cash, subject to adjustment for cash, unpaid indebtedness, unpaid transaction expenses and net working capital of Ambry, plus the issuance of an aggregate of 4,843,136 shares of our Class A common stock (the "Stock Consideration").

The Company issued the Stock Consideration to the Seller on February 3, 2025 upon the closing of the Acquisition. Pursuant to the terms of the Purchase Agreement, 2,152,505 of the shares issued as Stock Consideration are subject to a lock-up for a period of one year following the closing date of the Acquisition. The shares issued to the Seller as Stock Consideration for the Acquisition have not been registered under the Securities Act, and were issued in reliance on an exemption from such registration. The Company is registering the resale of the shares issued as stock consideration as required by the registration rights contained in the Purchase Agreement.

On February 3, 2025 (the "Closing Date"), in conjunction with the closing of the Acquisition, the Company entered into a Third Amendment to the Credit Agreement with Ares (the "Amendment Agreement"), which established (i) \$200.0 million in additional senior secured loan commitments (the "Third Amendment Term Loan Facility") and (ii) \$100.0 million in priority revolving commitments (the "Priority ABL Facility"). The Company borrowed \$200.0 million under the Third Amendment Term Loan Facility and \$100.0 million under the Priority ABL Facility on the Closing Date to fund, in part, the consideration payable in connection with the Acquisition. We are required to maintain a minimum liquidity of at least \$25 million and maintain specified amounts of consolidated revenues for the trailing twelve month period ending on the last day of each fiscal quarter. Minimum consolidated revenues shall equal either \$1.0 billion for the immediately trailing twelve month period or \$1.0 billion on a pro forma basis and for the fiscal quarters ending March 31, 2025 through December 31, 2025, and shall equal \$1.1 billion for the fiscal quarters ending March 31, 2026 through December 31, 2026. The Credit Agreement also contains a maximum first lien leverage from and after the fiscal quarter ending March 31, 2027.

Ambry is a leader in hereditary cancer screening. The Acquisition will provide the Company with expanded testing capabilities for inherited cancer risk. In addition, the Acquisition will complement the Company's strategy of using data to advance clinical and scientific innovation. Ambry's extensive product offerings will allow the Company to expand into new disease categories, including pediatrics, rare disease, immunology, women's reproductive health, and cardiology.

The Acquisition will be accounted for as a business combination under ASC 805. Due to the limited time since the closing, the initial accounting for the Acquisition is still in process. The remaining disclosures under ASC 805, *Business Combinations*, will be provided upon finalization of our preliminary purchase accounting. During the year ended December 31, 2024, the Company recognized acquisition-related costs of \$2.7 million, which are reflected within Selling, general and administrative in the consolidated statements of operations and comprehensive loss.

Amendment to Convertible Promissory Note

On February 22, 2025, the Company amended its Amended Note with Google, under which the maturity date of the Amended Note was extended to December 31, 2030. In addition, the amendment provides the Company the option upon maturity to repay up to 50% of the outstanding principal and accrued interest balance in the Company's Class A common stock.

In connection with the amendment of the Amended Note, the Company also signed an addendum to its Google Cloud Master Agreement to extend the services thereunder for a period of five years. Consistent with the original agreement, the addendum provides for a cancellation fee of 20% of the total unsatisfied minimum commitment, and a portion of the annual spend will reduce the principal balance of the Amended Note. The addendum will increase the Company's future purchase obligations by \$43.4 million.

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, with the participation of our Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act), as of the end of the period covered by this Annual Report on Form 10-K. Based on such evaluation, our principal executive officer and principal financial officer have concluded that these disclosure controls and procedures were effective at a reasonable assurance level as of December 31, 2024.

Changes in Internal Control Over Financial Reporting

There was no change in our internal control over financial reporting identified in connection with the evaluation required by Rule 13a-15(d) and 15d-15(d) of the Exchange Act that occurred during the quarter ended December 31, 2024, that have materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Limitations on Effectiveness of Controls and Procedures

Our management, including our Chief Executive Officer and Chief Financial Officer, believes that our disclosure controls and procedures and internal control over financial reporting are designed to provide reasonable assurance of achieving their objectives and are effective at the reasonable assurance level. However, the effectiveness of any internal control over financial reporting is subject to inherent limitations, including the exercise of judgment in designing, implementing, operating, and evaluating the controls and procedures, and the inability to eliminate misconduct completely. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, have been detected. The design of any system of controls is based in part on certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions. Over time, controls may become inadequate because of changes in conditions or deterioration in the degree of compliance with policies or procedures. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected.

Management's Report on Internal Control over Financial Reporting

This Annual Report on Form 10-K does not include a report of management's assessment regarding internal control over financial reporting or an attestation report of our independent registered public accounting firm due to a transition period established by rules of the SEC for newly public companies.

Item 9B. Other Information.***2025 Bonus Plan***

On February 24, 2025, the compensation committee of our board of directors approved a bonus plan for fiscal year 2025, or the 2025 Bonus Plan, for certain of our employees, including James Rogers, our Chief Financial Officer, and Ryan Fukushima, our Chief Operating Officer. Under the 2025 Bonus Plan, Messrs. Rogers and Fukushima will each be eligible to receive an award under our 2024 Equity Incentive Plan, payable in either cash or fully vested RSUs, with a target value equal to 50% and 66.7% of base salary, respectively, subject to the Company's achievement of pre-established performance goals.

Amendment to Convertible Promissory Note

On February 22, 2025, in connection with an addendum to our agreement for use of Google's Google Cloud Platform, or the Amended Google Master Agreement, we amended the Amended Note, or the Second Amended Note. The Amended Google Master Agreement extends the services thereunder for a period of five years.

The Second Amended Note has a principal amount of \$238.3 million, and bears interest at the rate set forth therein. The principal amount is automatically reduced each year based on a formula taking into account the aggregate value of the Google Cloud Platform services used by us under the Amended Google Master Agreement.

The outstanding principal and accrued interest under the Second Amended Note, or the Outstanding Amount, is due and payable on the earlier of (1) December 31, 2030, which is the maturity date of the Second Amended Note, (2) upon the occurrence and during the continuance of an event of default, and (3) upon the occurrence of an acceleration event, which includes any termination by us of the Amended Google Cloud Master Agreement. We generally may not prepay the Outstanding Amount, except that we may, at our option, prepay the Outstanding Amount in an amount such that the principal amount remaining outstanding after such repayment is \$150.0 million.

If the Second Amended Note is outstanding at the maturity date, Google may, at its option, convert the then outstanding principal amount and interest accrued under the Second Amended Note into a number of shares of Class A common stock equal to the quotient obtained by dividing (1) the Outstanding Amount on the maturity date, by (2) the average of the last trading price on each trading day during the twenty-day period ending immediately prior to the maturity date, or the Average Price. In addition, on the maturity date, the Company may, at its option, pay up to 50% of the Outstanding Amount, or the Equity Repayment Amount, by delivering a number of shares of Class A common stock equal to the quotient obtained by dividing (1) the Equity Repayment Amount by (2) the Average Price.

The Second Amended Note was, and any shares of Class A common stock issued upon conversion or repayment thereof will be, issued pursuant to the exemption provided in Section 4(a)(2) under the Securities Act of 1933, as amended, and Rule 506(b) promulgated thereunder.

The foregoing description of the terms of the Second Amended Note does not purport to be complete and is qualified in its entirety by reference to the Second Amended Note, a copy of which is filed as Exhibit 10.15 to this Annual Report on Form 10-K and which is incorporated herein by reference.

Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections.

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance.

The information required by this Item 10 of Form 10-K will be included in our 2025 Proxy Statement to be filed with the SEC in connection with the solicitation of proxies for our 2025 Annual Meeting of Stockholders and is incorporated herein by reference.

We have adopted a Code of Business Conduct that applies to all of our employees, officers and directors, including our principal executive officer, principal financial officer, principal accounting officer or controller or persons performing similar functions. The Code of Business Conduct is publicly available on our website at investors.tempus.com. This website address is intended to be an inactive, textual reference only; none of the material on this website is part of this Annual Report on Form 10-K. We intend to promptly disclose on our website or in a Current Report on Form 8-K in the future (i) the date and nature of any amendment (other than technical, administrative or other non-substantive amendments) to the Code of Business Conduct that applies to our principal executive officer, principal financial officer, principal accounting officer or controller or persons performing similar functions, or our directors and relates to any element of the code of ethics definition enumerated in Item 406(b) of Regulation S-K and (ii) the nature of any waiver, including an implicit waiver, from a provision of the Code of Business Conduct that is granted to one of these specified individuals that relates to one or more of the elements of the code of ethics definition enumerated in Item 406(b) of Regulation S-K, the name of such person who is granted the waiver and the date of the waiver.

We have adopted an Insider Trading Policy governing the purchase, sale and/or other dispositions of our securities by our directors, officers and employees. A copy of the Insider Trading Policy is filed as an exhibit to this Annual Report on Form 10-K. In addition, it is our practice to comply with the applicable laws and regulations relating to insider trading.

Item 11. Executive Compensation.

The information required by this Item 11 of Form 10-K will be included in our 2025 Proxy Statement and is incorporated herein by reference.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.

The information required by this Item 12 of Form 10-K will be included in our 2025 Proxy Statement and is incorporated herein by reference.

Item 13. Certain Relationships and Related Transactions, and Director Independence.

The information required by this Item 13 of Form 10-K will be included in our 2025 Proxy Statement and is incorporated herein by reference.

Item 14. Principal Accounting Fees and Services.

The information required by this Item 14 of Form 10-K will be included in our 2025 Proxy Statement and is incorporated herein by reference.

PART IV

Item 15. Exhibits, Financial Statement Schedules.

(a) The following documents are filed as part of this Annual Report on Form 10-K:

(1) *Consolidated Financial Statements*

Our consolidated financial statements are listed in the “Index to Consolidated Financial Statements” under Part II, Item 8 of this Annual Report on Form 10-K.

(2) *Financial Statement Schedules*

All financial statement schedules have been omitted because they are not applicable, not material, or the required information is shown in Part II, Item 8 of this Annual Report on Form 10-K.

(3) *Exhibits*

The exhibits listed below are filed as part of this Annual Report on Form 10-K, or are incorporated herein by reference, in each case as indicated below:

Exhibit Number	Description of Exhibit	Incorporated by Reference			
		Form	File No.	Exhibit	Filing Date
3.1	<u>Amended and Restated Certificate of Incorporation of the Registrant.</u>	8-K	001-42130	3.1	June 17, 2024
3.2	<u>Amended and Restated Bylaws of the Registrant.</u>	8-K	001-42130	3.2	June 17, 2024
4.1	<u>Specimen Class A Common Stock Certificate.</u>	S-1/A	333-279558	4.1	June 5, 2024
4.2*	<u>Description of Registrant’s Securities.</u>				
10.1	<u>Twelfth Amended and Restated Investor Rights Agreement, dated April 30, 2024.</u>	S-1	333-279558	10.1	May 20, 2024
10.2+	<u>The Registrant’s Third Amended and Restated 2015 Stock Plan, as amended.</u>	S-1	333-279558	10.2	May 20, 2024
10.3+	<u>Forms of Grant Notices and Award Agreements under the Registrant’s Third Amended and Restated 2015 Stock Plan, as amended.</u>	S-1	333-279558	10.3	May 20, 2024
10.4+	<u>The Registrant’s 2024 Equity Incentive Plan.</u>	S-1	333-279558	10.4	May 20, 2024
10.5+	<u>Forms of Grant Notice, Stock Option Agreement and Notice of Exercise under the Registrant’s 2024 Equity Incentive Plan.</u>	S-1	333-279558	10.5	May 20, 2024
10.6+	<u>Forms of Restricted Stock Unit Grant Notice and Award Agreement under the Registrant’s 2024 Equity Incentive Plan.</u>	S-1	333-279558	10.6	May 20, 2024
10.7+	<u>Form of Indemnification Agreement entered into by and between the Registrant and each director and executive officer.</u>	S-1	333-279558	10.7	May 20, 2024
10.8+	<u>Employment Agreement, by and between the Registrant and Eric Lefkofsky, dated February 1, 2024.</u>	S-1	333-279558	10.8	May 20, 2024
10.9+	<u>Employment Agreement, by and between the Registrant and Erik Phelps, dated January 1, 2023.</u>	S-1	333-279558	10.9	May 20, 2024

Exhibit Number	Description of Exhibit	Incorporated by Reference			
		Form	File No.	Exhibit	Filing Date
10.10+	<u>Employment Agreement, by and between the Registrant and Ryan Fukushima, dated January 1, 2023.</u>	S-1	333-279558	10.10	May 20, 2024
10.11+	<u>Employment Agreement, by and between the Registrant and James Rogers, dated January 1, 2023.</u>	S-1	333-279558	10.11	May 20, 2024
10.12+	<u>Employment Agreement, by and between the Registrant and Andy Polovin, dated January 1, 2023.</u>	S-1	333-279558	10.23	May 20, 2024
10.13#	<u>Agreement of Lease, by and between the Registrant and EQC 600 West Chicago Property LLC, dated January 18, 2018, as amended.</u>	S-1	333-279558	10.12	May 20, 2024
10.14†	<u>Supply Agreement, by and between the Registrant and Illumina, Inc., dated June 29, 2021.</u>	S-1	333-279558	10.13	May 20, 2024
10.15†*	<u>Second Amended and Restated Convertible Promissory Note, by and between the Registrant and Google LLC, dated February 22, 2025.</u>				
10.16†	<u>Amended and Restated Master Agreement, by and between the Registrant and Pathos AI, Inc., dated February 12, 2024.</u>	S-1/A	333-279558	10.15	June 5, 2024
10.17†	<u>Master Services Agreement, by and between the Registrant and AstraZeneca AB, dated November 17, 2021.</u>	S-1	333-279558	10.16	May 20, 2024
10.18+	<u>The Registrant's 2024 Employee Stock Purchase Plan.</u>	S-1	333-279558	10.17	May 20, 2024
10.19†	<u>Strategic Collaboration Agreement, by and between the Registrant and Glaxosmithkline LLC, dated August 1, 2022.</u>	S-1	333-279558	10.18	May 20, 2024
10.20#	<u>Credit Agreement, by and among the Registrant, the lenders party thereto, Ares Capital Corporation and Ares Capital Management LLC, dated September 22, 2022.</u>	S-1	333-279558	10.19	May 20, 2024
10.21#	<u>Limited Waiver and First Amendment to Credit Agreement, by and among the Registrant, the loan party signatories and lenders party thereto, and Ares Capital Corporation as administrative agent, dated April 25, 2023.</u>	S-1	333-279558	10.20	May 20, 2024
10.22#	<u>Second Amendment to Credit Agreement, by and among the Registrant, the loan party signatories and lenders party thereto, and Ares Capital Corporation as administrative agent, dated October 11, 2023.</u>	S-1	333-279558	10.21	May 20, 2024
10.23†	<u>Master Agreement, by and between the Registrant and Recursion Pharmaceuticals, Inc., dated November 3, 2023.</u>	S-1	333-279558	10.22	May 20, 2024
10.24†	<u>Amendment to Master Services Agreement, by and between Registrant and AstraZeneca AB, dated October 29, 2022.</u>	S-1	333-279558	10.24	May 20, 2024
10.25†	<u>Second Amendment to Master Services Agreement, by and between Registrant and AstraZeneca UK Ltd, dated February 21, 2023.</u>	S-1	333-279558	10.25	May 20, 2024

Exhibit Number	Description of Exhibit	Incorporated by Reference			
		Form	File No.	Exhibit	Filing Date
10.26†	<u>Third Amendment to Master Services Agreement, by and between Registrant and AstraZeneca AB, dated December 18, 2023.</u>	S-1	333-279558	10.26	May 20, 2024
10.27†	<u>Joint Venture Agreement, by and among Softbank Group Corporation, Softbank Group Japan Corporation, the Registrant and Pegasos Corp., dated May 18, 2024.</u>	S-1/A	333-279558	10.27	June 5, 2024
10.28†	<u>Data License Agreement by and between the Registrant and Pegasos Corp., dated May 18, 2024.</u>	S-1/A	333-279558	10.28	June 5, 2024
10.29†	<u>Intellectual Property License Agreement, by and between the Registrant and Pegasos Corp., dated May 18, 2024.</u>	S-1/A	333-279558	10.29	June 5, 2024
10.30†	<u>Amendment No. 1 to Strategic Collaboration Agreement, by and between the Registrant and GlaxoSmithKline LLC, dated May 20, 2024.</u>	S-1/A	333-279558	10.30	June 5, 2024
10.31#	<u>Securities Purchase Agreement, by and among the Registrant, REALM IDx, Inc. and Konica Minolta, Inc., dated November 4, 2024</u>	8-K	001-42130	10.1	November 5, 2024
10.32#	<u>Third Amendment to Credit Agreement and First Amendment to Guarantee and Collateral Agreement, dated as of February 3, 2025, by and among the Company, certain subsidiaries of the Company party thereto, the lenders party thereto, Ares Capital Corporation, as administrative agent and ACF Finco I LP, as revolving agent.</u>	8-K	001-42130	10.1	February 3, 2025
10.33	<u>Start-Up Agreement by and between the Registrant and Pathos AI, Inc., dated August 1, 2024</u>	10-Q	333-279558	10.11	November 5, 2024
10.34*	<u>Eighth Amendment to Agreement of Lease, dated as of June 18, 2024, by and between the Registrant and EQC 600 West Chicago Property LLC.</u>				
19.1*	<u>Insider Trading Policy.</u>				
21.1	<u>List of subsidiaries of the Registrant</u>	S-1/A	333-279558	21.1	June 5, 2024
23.1*	<u>Consent of PricewaterhouseCoopers LLP, independent registered public accounting firm.</u>				
24.1*	<u>Power of Attorney (included on signature pages).</u>				
31.1*	<u>Certification of Principal Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.</u>				
31.2*	<u>Certification of Principal Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.</u>				
32.1*+	<u>Certification of Principal Executive Officer and Principal Financial Officer pursuant to 18 U.S.C Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.</u>				
97*	<u>Incentive Compensation Recoupment Policy.</u>				
101.INS*	Inline XBRL Instance Document – the instance document does not appear in the Interactive Data File as its XBRL tags are embedded within the Inline XBRL document.				

Exhibit Number	Description of Exhibit	Incorporated by Reference			
		Form	File No.	Exhibit	Filing Date
101.SCH*	Inline XBRL Taxonomy Extension Schema with Embedded Linkbase Document.				
104*	Cover Page formatted as inline XBRL and contained in Exhibit 101.				

* Filed herewith

+ Furnished herewith and not deemed to be “filed” for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, and shall not be deemed to be incorporated by reference into any filing under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended.

† Certain portions of this exhibit (indicated by asterisks) have been omitted because they are not material and are the type that the registrant treats as private or confidential.

Certain schedules and exhibits to this exhibit have been omitted pursuant to Item 601(a)(5) of Regulation S-K. A copy of any omitted schedule and/or exhibit will be furnished to the SEC upon request.

Item 16. Form 10-K Summary

None.

SIGNATURES

Pursuant to the requirements 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.

TEMPUS AI, INC.

Date: February 24, 2025

By: /s/ Eric Lefkofsky

Eric Lefkofsky
Chief Executive Officer, Founder and Chairman
(Principal Executive Officer)

POWER OF ATTORNEY

KNOW ALL BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Eric Lefkofsky, James Rogers and Andrew Polovin, and each of them, as his or her true and lawful attorney-in-fact and agent with full power of substitution and resubstitution, for such individual in any and all capacities, to sign 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 requisite and necessary to be done in connection therewith, as fully for all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or any of them, or the individual's substitute, may lawfully do or cause to be done by virtue hereof.

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

Signature	Title	Date
<u>/s/ Eric Lefkofsky</u> Eric Lefkofsky	Chief Executive Officer, Founder and Chairman (Principal Executive Officer)	February 24, 2025
<u>/s/ James Rogers</u> James Rogers	Chief Financial Officer (Principal Financial Officer)	February 24, 2025
<u>/s/ Ryan Bartolucci</u> Ryan Bartolucci	Chief Accounting Officer (Principal Accounting Officer)	February 24, 2025
<u>/s/ Peter J. Barris</u> Peter J. Barris	Director	February 24, 2025
<u>/s/ Eric D. Belcher</u> Eric D. Belcher	Director	February 24, 2025
<u>/s/ Jennifer A. Doudna</u> Jennifer A. Doudna, Ph.D.	Director	February 24, 2025
<u>/s/ David R. Epstein</u> David R. Epstein	Director	February 24, 2025
<u>/s/ Wayne A.I. Frederick</u> Wayne A.I. Frederick, M.D.	Director	February 24, 2025
<u>/s/ Scott Gottlieb</u> Scott Gottlieb, M.D.	Director	February 24, 2025
<u>/s/ Theodore J. Leonsis</u>	Director	February 24, 2025

Signature	Title	Date
Theodore J. Leonsis		
/s/ Nadja West Nadja West, M.D.	Director	February 24, 2025

Board of Directors**Eric Lefkofsky**

Managing Member, General Partner, Lightbank LLC

Co-Founder, Groupon, Inc., Pathos AI, Inc.

Director, Northwestern Memorial Healthcare

Peter J. Barris

Director, Sprout Social, Inc.

Chairman Emeritus, New Enterprise Associates, Inc.

Eric D. Belcher

*Chief Executive Officer, Market Track, LLC
(d/b/a Numerator)*

Jennifer A. Doudna, Ph.D.

Director, Johnson & Johnson, Inc.

Chemistry Nobel Prize Recipient, 2020

David R. Epstein

Chairman & Chief Executive Officer, Ottimo Pharma Limited

Director, Valo Health, LLC, Shape

Therapeutics, Inc., Agomab Therapeutics NV

Wayne A.I. Frederick, M.D.

Director, Workday, Inc.

Chief Executive Officer, American Cancer Society

President Emeritus, Howard University

Scott Gottlieb, M.D.

Director, Pfizer, Inc., Illumina, Inc.

Theodore J. Leonsis

General Partner, Revolution Growth

Founder, Chairman & Chief Executive Officer,

Monumental Sports & Entertainment, LLC

Director, American Express Co.

Nadja West, M.D.

Director, Johnson & Johnson, Inc., Tenet

Healthcare Corp., Nucor Corporation

Executive Officers**Eric Lefkofsky**

Chief Executive Officer and Founder

Ryan Fukushima

Chief Operating Officer

Erik Phelps

Executive Vice President, Chief Administrative and Legal Officer and Assistant Secretary

Andrew Polovin

Executive Vice President, General Counsel and Secretary

James Rogers

Chief Financial Officer