Precipio, Inc.
Form 424B5
February 09, 2018
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Filed Pursuant to Rule 424(b)(5)
Registration No. 333-201907

PROSPECTUS SUPPLEMENT
(To the Prospectus dated February 13, 2015)
Up to $8,000,000
Common Stock

We have entered into an Equity Purchase Agreement with Leviston Resources LLC, or the Investor, relating to shares of our common stock offered by this prospectus supplement and the accompanying prospectus. In accordance with the terms of such agreement, we may offer and sell shares of our common stock having an aggregate offering price of up to $8,000,000, or the Aggregate Amount, from time to time to the Investor.

Our common stock is listed on the NASDAQ Capital Market under the symbol “PRPO.” On February 8, 2018, the last reported sale price of our common stock on the NASDAQ Capital Market was $1.04 per share.

Sales of our common stock, if any, under this prospectus supplement and the accompanying prospectus may be made in sales deemed to be “at-the-market” equity offerings as defined in Rule 415 promulgated under the Securities Act of 1933, as amended, or the Securities Act, at a purchase price equal to 97.25% of the volume weighted average sales price of the common stock reported on the date that the Investor receives a capital call from us. The Investor has agreed to make an initial investment of $750,000 following the close of business on February 9, 2018 at a price of $1.04 per share.

We estimate that the total gross proceeds from this offering will be approximately $8.0 million. We estimate the total expenses of this offering, excluding the discount to the Investor, will be approximately $0.6 million of which $0.4 million will be paid in stock. As consideration for the Investor entering into the Equity Purchase Agreement, we have agreed to pay to the Investor a commitment fee in shares of our common stock equal in value to 5.25% of the total Aggregate Amount, payable as follows: 1.75% before February 12, 2018; 1.75% on the third calendar day after the date on which the registration statement on Form S-1 that we plan to file with the SEC is declared effective by the SEC; and 1.75% on the thirtieth calendar day after the date on which such registration statement on Form S-1 is declared effective by the SEC.

We have agreed to pay to the Investor, on each day the Investor receives a capital call from us, all expenses associated with depositing, clearing, selling and mailing of the stock certificates, a fee of .75% of any amount purchased by the Investor. In addition we have agreed to reimburse $35,000 to the Investor for a documentation fee for preparing the equity purchase agreement, of which $15,000 will be refunded by the Investor on the earlier of 60 days after the signing of the equity purchase agreement and the third purchase by the Investor under the equity purchase agreement.

The Investor may be deemed to be an “underwriter” within the meaning of the Securities Act and the compensation and discounts received by the Investor will be deemed to be underwriting commissions or discounts.

Investing in our securities involves a high degree of risk. Please read the information contained in and incorporated by reference under the heading “Risk Factors” beginning on page S-9 of this prospectus supplement, and under similar heading in the other documents that are filed after the date hereof and incorporated by reference into this prospectus supplement.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus supplement or the accompanying prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

February 8, 2018.

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You should rely only on the information contained in or incorporated by reference into this prospectus supplement and the accompanying base prospectus and any free writing prospectuses prepared by us or on our behalf. We have not authorized any person to provide any information or make any statement that differs from what is contained in this prospectus supplement, the accompanying base prospectus and any free writing prospectuses prepared by us or on our behalf. If any person does make a statement that differs from what is in this prospectus supplement, the accompanying base prospectus or any free writing prospectuses, you should not rely on it. This prospectus supplement is not an offer to sell, nor is it a solicitation of an offer to buy, these securities in any jurisdiction in which the offer or sale is not permitted. You should assume that the information contained in this prospectus supplement, the accompanying base prospectus, any free writing prospectus and the documents incorporated by reference is accurate only as of their respective dates, regardless of the time of delivery of this prospectus supplement, the accompanying base prospectus, any free writing prospectus or of any sale of our securities in this offering. Our business, financial condition, results of operations and prospects may have subsequently changed.

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ABOUT THIS PROSPECTUS SUPPLEMENT

This prospectus supplement and the accompanying base prospectus are part of a registration statement on Form S-3 that the Company (then known as Transgenomic, Inc.), filed with the Securities and Exchange Commission, or SEC, in February 2015 using a "shelf" registration statement. Under the shelf registration statement, we may offer and sell any combination of securities described in the accompanying base prospectus in one or more offerings. We may offer shares of our common stock having an aggregate offering price of up to $8,000,000 from time to time under this prospectus supplement at prices and on terms to be determined by market conditions at the time of offering. The accompanying base prospectus provides you with a general description of the securities we may offer. Each time we use the accompanying base prospectus to offer securities, we will provide a prospectus supplement that will contain specific information about the terms of that offering. The prospectus supplement may also add, update or change information contained in the accompanying base prospectus. References in this prospectus supplement to the "Company," "we," "us," or "our," refer to Precipio, Inc. and its wholly-owned subsidiary unless otherwise indicated.

This prospectus supplement, the accompanying base prospectus and the documents incorporated by reference herein include important information about us, our common stock and other information you should know before investing. This prospectus supplement describes the specific details regarding this offering, including the price, the amount of common stock being offered and the risks of investing in our securities. The accompanying base prospectus provides general information about us, some of which may not apply to this offering.

To the extent that any statement that we make in this prospectus supplement is inconsistent with statements made in the accompanying base prospectus, the statements made in this prospectus supplement will be deemed to modify or supersede those made in the accompanying base prospectus. You should read both this prospectus supplement and the accompanying base prospectus together with additional information described under the heading, "Where You Can Find More Information."

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CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement and the documents incorporated by reference herein include forward-looking statements 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. All statements other than statements of historical facts contained in this prospectus supplement and in the documents incorporated by reference herein, including statements regarding the future financial position, business strategy and plans and objectives of management for future operations, are forward-looking statements. The words “believe,” “may,” “will,” “estimate,” “continue,” “anticipate,” “intend,” “should,” “plan,” “expect,” and similar expressions, as they relate to us, are intended to identify forward-looking statements. We have based these forward-looking statements largely on current expectations and projections about future events and financial trends that we believe may affect our financial condition, results of operations, business strategy and financial needs. These forward-looking statements are subject to a number of risks, uncertainties and assumptions, including, without limitation, those described in “Risk Factors” in this prospectus supplement, in our Annual Report on Form 10-K for the year ended December 31, 2016, and our subsequent filings with the SEC incorporated by reference herein, including, among other things:

- the progress, timing and amount of expenses associated with our development and commercialization activities;
- our plans and ability to develop and commercialize new products and services, and make improvements to our existing products and services;
- our ability to protect our intellectual property and operate our business without infringing upon the intellectual property rights of others;
- our ability or the amount of time it will take to achieve successful reimbursement of our existing and future products and services from third-party payors, such as commercial insurance companies and health maintenance organizations, and government insurance programs, such as Medicare and Medicaid;
- the accuracy of our estimates of the size and characteristics of the markets that may be addressed by our products;
- the success of our study to demonstrate the impact of academic pathology expertise on diagnostic accuracy, and any other studies or trials we may conduct;
- our intention to seek, and our ability to establish, strategic collaborations or partnerships for the development or sale of our products and the effectiveness of such collaborations or partnerships;
- our expectations as to future financial performance, expense levels and liquidity sources;
- our anticipated cash needs and our estimates regarding our capital requirements and our needs for additional financing, as well as our ability to obtain such additional financing on reasonable terms;
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our ability to compete with other companies that are or may be developing or selling products that are competitive with our products;

- our ability to build a sales force to market our products and services, and anticipated increases in our sales and marketing costs due to an expansion in our sales force and marketing activities;

- federal and state regulatory requirements, including potential United States Food and Drug Administration regulation of our products or future products;

- anticipated trends and challenges in our potential markets;

- our ability to attract and retain key personnel; and

- other factors discussed elsewhere in this prospectus supplement.

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These risks are not exhaustive. Other sections of this prospectus supplement and the documents incorporated by reference herein include additional factors which could adversely impact our business and financial performance. Moreover, we operate in a very competitive and rapidly changing environment.

New risk factors emerge from time to time and it is not possible for us to predict all risk factors, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements.

You should not rely upon forward-looking statements as predictions of future events. We cannot assure you that the events and circumstances reflected in the forward-looking statements will be achieved or occur. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance or achievements.

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SUMMARY

This summary highlights selected information appearing elsewhere or incorporated by reference in this prospectus supplement and accompanying prospectus and may not contain all of the information that is important to you. This prospectus supplement and the accompanying prospectus include or incorporate by reference information about the securities we are offering as well as information regarding our business and detailed financial data. You should read this prospectus supplement and the accompanying prospectus in their entirety, including the information incorporated by reference.

The Company

Overview

We are a cancer diagnostics company providing diagnostic products and services to the oncology market. We have built and continue to develop a platform designed to eradicate the problem of misdiagnosis by harnessing the intellect, expertise and technology developed within academic institutions and delivering quality diagnostic information to physicians and their patients worldwide. We operate a cancer diagnostic laboratory located in New Haven, Connecticut and have partnered with the Yale School of Medicine to capture the expertise, experience and technologies developed within academia so that we can provide a better standard of cancer diagnostics and solve the growing problem of cancer misdiagnosis. We also operate a research and development facility in Omaha, Nebraska which will focus on further development of ICE-COLD-PCR, or ICP, the patented technology described further below, which was exclusively licensed by us from Dana-Farber Cancer Institute, Inc., or Dana-Farber, at Harvard University. The research and development center will focus on the development of this technology, which we believe will enable us to commercialize other technologies developed by our current and future academic partners. Our platform connects patients, physicians and diagnostic experts residing within academic institutions. Launched in 2017, the platform facilitates the following relationships:

- Patients: patients may search for physicians in their area and consult directly with academic experts that are on the platform. Patients may also have access to new academic discoveries as they become commercially available.

- Physicians: physicians can connect with academic experts to seek consultations on behalf of their patients and may also provide consultations for patients in their area seeking medical expertise in that physician’s relevant specialty. Physicians will also have access to new diagnostic solutions to help improve diagnostic accuracy.

- Academic Experts: academic experts on the platform can make themselves available for patients or physicians seeking access to their expertise. Additionally, these experts have a platform available to commercialize their research discoveries.

We intend to continue updating our platform to allow for patient-to-patient communications and allow individuals to share stories and provide support for one another, to allow physicians to consult with their peers to discuss and share challenges and solutions, and to allow academic experts to interact with others in academia on the platform to discuss their research and cross-collaborate.

ICP was developed at Harvard and is licensed exclusively by us from Dana-Farber. The technology enables the detection of genetic mutations in liquid biopsies, such as blood samples. The field of liquid biopsies is a rapidly growing market, aimed at solving the challenge of obtaining genetic information on disease progression and changes from sources other than a tumor biopsy.

Gene sequencing is performed on tissue biopsies taken surgically from the tumor site in order to identify potential therapies that will be more effective in treating the patient. There are several limitations to this process. First, surgical procedures have several limitations, including:

- Cost: surgical procedures are usually performed in a costly hospital environment. For example, according to a recent study the mean cost of lung biopsies is greater than $14,000; surgery also involves hospitalization and recovery time.

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- Surgical access: various tumor sites are not always accessible (e.g. brain tumors), in which cases no biopsy is available for diagnosis.

- Risk: patient health may not permit undergoing an invasive surgery; therefore a biopsy cannot be obtained at all.

- Time: the process of scheduling and coordinating a surgical procedure often takes time, delaying the start of patient treatment.

Second, there are several tumor-related limitations that provide a challenge to obtaining such genetic information from a tumor:

- Tumors are heterogeneous by nature: a tissue sample from one area of the tumor may not properly represent the tumor's entire genetic composition; thus, the diagnostic results from a tumor may be incomplete and non-representative.

- Metastases: in order to accurately test a patient with metastatic disease, ideally an individual biopsy sample should be taken from each site (if those sites are even known). These biopsies are very difficult to obtain; therefore physicians often rely on biopsies taken from the primary tumor site.

The advent of technologies enabling liquid biopsies as an alternative to tumor biopsy and analysis is based on the fact that tumors (both primary and metastatic) shed cells and fragments of DNA into the blood stream. These blood samples are called "liquid biopsies" that contain circulating tumor DNA, or ctDNA, which hold the same genetic information found in the tumor(s). That tumor DNA is the target of genetic analysis. However, since the quantity of tumor DNA is very small in proportion to the "normal" (or "healthy") DNA within the blood stream, there is a need to identify and separate the tumor DNA from the normal DNA.

ICP is an enrichment technology that enables the laboratory to focus its analysis on the tumor DNA by enriching, and thereby "multiplying" the presence of, tumor DNA, while maintaining the normal DNA at its same level. Once the enrichment process has been completed, the laboratory genetic testing equipment is able to identify genetic abnormalities presented in the ctDNA, and an analysis can be conducted at a higher level of sensitivity, to enable the detection of such genetic abnormalities. The technology is encapsulated into a chemical that is provided in the form of a kit and sold to other laboratories who wish to conduct these tests in-house. The chemical within the kit is added to the specimen preparation process, enriching the sample for the tumor DNA so that the analysis will detect those genetic abnormalities.

Industry Problem

There is currently a significant problem with rates of misdiagnosis across numerous disease states (particularly in cancer) due to an inefficient industry. We believe that the diagnostic industry has been commoditized, focusing primarily on price and test turnaround times as competing factors, at the expense of quality and accuracy. Increasingly complex disease states are met with eroding specialization rather than increased expertise. According to a study conducted by the National Coalition of Health, this results in an industry with up to 28% cancer misdiagnosis rates which is failing to meet the needs of physicians, patients and the healthcare system as a whole. New technologies offer improved accuracy; however, many are either inaccessible, or are not economically practical for clinical use. Despite much publicity of the industry transitioning from fee-per-service to value-based payments, that transition has not yet occurred in diagnostics. When a patient is misdiagnosed, physicians end up administrating incorrect treatments, often creating adverse effects rather than improving outcomes, payers waste valuable treatment dollars applied incorrectly and can incur substantial downstream costs and, most importantly, patients pay the ultimate price with increased morbidity and mortality. According to a report by Pinnacle Health, the estimated cost of misdiagnosis to the

healthcare system is $750 billion annually. We believe that the academic path of specialization produces the critical expertise necessary to correctly diagnose disease; and that academic institutions have an unlocked potential to address this problem. Our solution is to create an exclusive platform that harnesses academic expertise and proprietary technologies to deliver the highest standard of diagnostic accuracy and patient care. Physicians, hospitals, payers and, most importantly, patients all benefit from more accurate diagnostics.

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Market

As a services and technology commercialization company, we currently participate in two segments within the U.S. domestic oncology diagnostics market. The first is the anatomic pathology services market, which is estimated to reach $22 billion by the end of 2022, growing at an average 8% compound annual growth rate from 2017 to 2021. The second segment is the liquid biopsy reagents/kits market. According to the Piper Jaffray report from September 2015 on the liquid biopsy market, the domestic market opportunity for the oncology liquid biopsy market is over $28 billion per year, and encompasses screening, therapy selection, treatment monitoring and recurrence. The current market size for new cancer diagnoses is 1.6 million new cases per year and over 15.5 million people living with cancer, and the cancer diagnostics market size in North America was estimated to be $50 billion in 2016. We believe additional opportunities exist in clinical trials searching for low cost and high quality solutions for patient selection and treatment monitoring.

Our Solution

Our Platform

Our platform is designed to provide physicians and their patients access to the necessary academic expertise and technology to properly diagnose disease. To our knowledge we are the only company focused on addressing the issue of diagnostic accuracy with an innovative, robust and scalable business model by:

- Providing physicians and their patients access to world-class academic experts and technologies.

- Allowing payers to benefit from quality-based outcomes to their patients and recognize cost savings.

- Enabling cross-collaboration between physicians and academic institutions to advance research and discovery.

Our exclusive agreement with the Department of Pathology at Yale University, or the Pathology Services Agreement, is part of a unique platform that to our knowledge is not offered by other commercial laboratories. Our customers are oncologists who biopsy their patients in order to confirm or rule out the presence of cancer. After our customers send the samples to us, we conduct all the technical tests at our New Haven facility. We then transmit the test results to the pathologists at Yale who have access to our laboratory information system from their respective offices, enabling them to review and render their diagnostic interpretation of the test results, for reporting. In partnership with Yale faculty, we have developed a proprietary algorithm that is applied to each sample submitted to us for testing, resulting in our ability to render a more concise and accurate diagnosis. The final diagnostic results are prepared by Yale pathologists and integrated into the final report by us, and are then delivered electronically through our web portal to the referring clinician. The patient's insurance is billed for the services; we are paid for the technical work done at our laboratory; and Yale pathologists are paid by us for their diagnostic interpretation.

In March 2017 we renewed the Pathology Services Agreement for an additional five-year term, effective as of June 2016, through June 2021. Under the Pathology Services Agreement, the Yale Department of Pathology may not provide the hematopathology services that it provides to us to any other commercial entity that is one of our competitors. The Pathology Services Agreement allows for termination by either party (i) for uncured breach by the other party, (ii) if either party has its respective license suspended or revoked, (iii) if the insurance coverage of either party is canceled or modified, (iv) if we fail to maintain or meet the requirements of Medicare conditions of participation, or (v) if we declare bankruptcy. The Pathology Services Agreement also provides that if the performance by either party (i) jeopardizes the licensure or accreditation of Yale or any Yale physician, (ii) jeopardizes either party's participation in Medicare, Medicaid or other federal, state or commercial reimbursement programs, (iii) violates any statute, ordinance or otherwise is deemed illegal, (iv) is deemed unethical by any recognized body, agency or association in the medical or laboratory fields, or (v) causes a substantial threat to Yale's tax-exempt status, then either party may initiate negotiations to amend the Pathology Services Agreement and the Pathology Services Agreement will terminate if a mutually agreed amendment is not executed by the parties within 30 days.

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ICE-COLD-PCR

ICP technology was developed at Dana-Farber and is licensed by us. ICP is a unique, proprietary patented specimen enrichment technology that increases the sensitivity of molecular based tests from approximately 90-95% to 99-99.99%. Traditional molecular testing is done on tumor biopsies. These tests are typically conducted at disease onset, when the patient undergoes a biopsy. In the typical course of treatment, a patient is rarely re-biopsied, and therefore the only genetic information is based on the initial biopsy. Tumors are known to shed cells into the patient's blood stream, where they circulate alongside normal cells; however, existing testing methodologies are not sufficiently sensitive to differentiate between the tumor and normal cells. The increased sensitivity provided by ICP allows for testing of genetic mutations that occur within tumors to be conducted on peripheral blood samples, termed liquid biopsies. This technical capability enables physicians to test for genetic mutations without conducting a biopsy, through a simple blood test rather than a biopsy extracted from the actual tumor. The results of such tests can be used for diagnosis, prognosis and therapeutic decisions. The technology is encapsulated within a chemical (reagent) used during the specimen preparation process, which enriches (amplifies) the tumor DNA detected within the blood sample, while suppressing the normal DNA. In addition to offering this technology as a clinical service, we are developing panels that will be sold as reagent kits to other laboratories to set up this testing in their facilities. This enables other labs to improve their test sensitivity and render results on liquid biopsies. The business model of selling reagents to other laboratories both expands the reach and impact of the technology, while eliminating the reimbursement risks that we would face in running the tests in-house.

We license the ICP technology from Dana-Farber through a license agreement, or the License Agreement. The License Agreement grants us an exclusive license to the ICP technology, subject to a non-exclusive license granted to the U.S. government, in the areas of mutation detection using Sanger (di-deoxy) sequencing and mitochondrial DNA analysis for all research, diagnostic, prognostic and therapeutic uses in humans, animals, viruses, bacteria, fungi, plants or fossilized material. The License Agreement also grants us a non-exclusive license in the areas of mutation detection using DHPLC, surveyor-endonuclease-based mutation detection and second generation sequencing techniques. We paid Dana-Farber an initial license fee and are required to make milestone payments with respect to the first five licensed products or services we develop using the licensed technology as well as royalties ranging from high single to low double digits on net sales of licensed products and services for sales made by us and sales made to any distributors. The License Agreement remains in effect until we cease to sell licensed products or services under the agreement. Dana-Farber has the right to immediately terminate the License Agreement if (i) we cease to carry on our business with respect to licensed products and services, (ii) we fail to make any payments under the License Agreement (subject to a cure period), (iii) we fail to comply with due diligence obligations under the License Agreement (subject to a cure period), (iv) we default in our obligations to procure and maintain insurance as required by the License Agreement, (v) any of our officers is convicted of a felony relating to the manufacture, use, sale or importation of licensed products under the License Agreement, (vi) we materially breach any provision of the License Agreement (subject to a cure period), or (vii) we or Dana-Farber become insolvent. We may terminate the License Agreement for convenience upon 180 days' prior written notice.

Reimbursement

Since cancer is typically a disease with an onset at a later age, the largest insurance provider which constitutes close to 32% of our patient cases is Medicare. The remaining patients are insured by private insurance companies who provide patient coverage and pay for patients health-related costs. The Center for Medicare and Medicaid Services, or CMS, typically publishes its rates annually, and providers such as us bill according to the codes relevant to the tests we conduct. Other private insurance companies will often follow suit and adjust their rates according to the published CMS rates.

Our Products

Our initial product offering consists of clinical diagnostic services harnessing the expertise of the Yale School of Medicine and the commercialization and application of ICP, a cutting-edge technology developed at Dana-Farber, part of Harvard University. Our clinical diagnostic services focus on the

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diagnosis of blood cancers and the delivery of an accurate diagnosis to oncologists, with demonstrated superior results through an exclusive partnership with Yale. We intend to enter into additional partnerships during 2018. Our cutting-edge liquid biopsy technology, ICP, enables detection of abnormalities in blood samples (cfDNA) down to as low as .01%. This low-cost technology enables customers to conduct the tests in-house using existing mutation detection platforms and creates what we believe to be the only current economically viable option for liquid biopsy applications. Our customers are oncologists, hospitals, reference laboratories, and pharma and biotech companies, to whom we plan to cross-market other technologies (such as ICP) and services on our platform.

We built and obtained CLIA certification to operate our New Haven laboratory. The laboratory is approximately 3,000 square feet and has several sub-departments such as flow cytometry, immune-histochemistry, cytogenetics, and molecular testing. The laboratory is currently operated by five lab technicians and is supervised by a laboratory manager and a medical director. Our laboratory is inspected every two years by a Connecticut state-appointed inspection, and once approved by the state inspector, we are issued a CLIA-certificate. Furthermore, the laboratory supervisor and medical director must conduct a self-inspection every two years (rotating with the state inspection) and must submit those results to the state department of health.

The laboratory operations are governed by Standard Operating Procedure manuals, or SOPs, which detail each aspect of the laboratory environment including the work flow, quality control, maintenance, and safety. These SOPs are reviewed annually, approved and signed off by the laboratory manager and medical director.

Our Strategy

Our objective is to eradicate the problem of misdiagnosis by harnessing the intellect, expertise and technology developed within academic institutions and delivering quality diagnostic information to physicians and their patients worldwide. To achieve this objective our strategy is to focus our efforts on the following areas:

- Clinical pathology services — we intend to continue building our platform by increasing the number of academic experts available on our platform and partnering with other academic institutions, allowing us to expand our portfolio of services to cover additional types of cancer.

- Ice-Cold PCR — we believe we can commercialize and develop new applications for our ICP technology, including:

  Developing specific application panels for patient monitoring for treatment resistance and disease recurrence;

  Building focused diagnostic and screening panels for initial disease identification;

  Leveraging our platform customers to generate demand for repeat, localized, in-house liquid biopsy testing; and

  Applying ICP technology to other markets, such as pre-natal and companion diagnostics.

- New product pipeline through outsourced research and development — we plan on utilizing our partnerships with academic institutions to gain access to newly-developed technologies. We also believe there is an opportunity to partner with biotechnology companies to introduce their products to the U.S. market through our platform.

- Academic partnerships — we intend to leverage the intellectual expertise and technologies developed within academic institutions. We believe we have validated this model through our partnership with the Yale School of Medicine and are currently in the process of adding new academic partners.

Competition

Our principal competition in clinical pathology services comes largely from two groups. The first group consists of companies that specialize in oncology and offer directly competing services to our diagnostic services. These companies often provide a high level of service focused on oncology and offer their services

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to oncologists and pathology departments within hospitals. Our competitors in this group include Genoptix, GenPath Diagnostics and Miraca Life Sciences. The second group consists of large commercial companies that offer a wide variety of laboratory tests ranging from simple chemistry tests to complex genetic testing. Our competitors in this group include LabCorp and Quest Diagnostics. We believe that companies in this industry primarily compete on price and speed results delivery. We have chosen to focus on the quality and accuracy of results. Within the liquid biopsy market, our competitors include Guardant Health and Trovagene, Inc.

Competitive Advantage

We capitalize on the intellectual expertise and technologies developed within academic institutions by academic experts. While several industry papers report a misdiagnosis rate as high as 28% of cases diagnosed, we believe that leveraging academic expertise in diagnosis can significantly reduce the number of patients being misdiagnosed. In an initial data set of over 100 clinical cases received and processed by us with a diagnosis rendered by Yale pathologists, we believe less than 1% have resulted in misdiagnosis. The diagnostic report provided by us was then requested by a patient or the patient's physician for a second opinion to be conducted by another laboratory. In those cases, less than 1% reported back a disagreement with the original primary diagnosis. While a minority of patients are treated in academic centers and can benefit from that specialized expertise, the majority of patients are diagnosed by commercial reference laboratories. Comparatively, these commercial laboratories and diagnostic companies have broad access to and serve a majority of patients; however, we believe their lack of specialized expertise results in significantly higher misdiagnosis rates. Academic institutions also invest heavily in the development of new technologies, many of which are often used only within the academic institution and do not benefit outside patients. Our platform offers patients anywhere access to these innovative technologies developed within Yale and any other academic institutions we engage in the future.

In July 2017, after receiving approval from the Yale Human Investigation Committee, we commenced a study to demonstrate the impact of academic pathology expertise on diagnostic accuracy. The purpose of this study is to use data from a large set of patients to determine whether academic pathologists provide a higher level of accuracy of the diagnosis, improving patient care, as well as reducing the subsequent costs involved in treating the patient, compared to diagnosis conducted outside of an academic institution. The study is being conducted at the Department of Pathology at Yale School of Medicine.

The retrospective study will gather data on approximately 500 to 1,000 patients who have received an initial diagnosis, followed by a second opinion, and stratify them into two cohorts. The first cohort will consist of patients diagnosed initially outside of an academic institution, and then referred to Yale for treatment where they received a second opinion diagnosis by an academic pathologist at Yale. The second cohort will consist of patients initially diagnosed at Yale, who then proceeded to obtain a second opinion from an outside institution. The study will identify those patients where the second opinion differs from the initial diagnosis, suggesting a possible misdiagnosis. In those situations, the case will be referred to another academic institution to conduct a blinded, third evaluation in order to determine which diagnosis was correct. The study will then further evaluate the subsequent patient response due to the change in diagnosis, to determine the impact that the change in diagnosis had on the patient.

As part of the study, we have also partnered with the Department of Medicine at Thomas Jefferson University in Philadelphia, which routinely conducts research to evaluate the economic impact of various healthcare decisions, to quantify the cost of misdiagnosis within cancer treatment. In those situations where discordance is identified between the primary and secondary diagnosis, an evaluation will be made of pre-and-post diagnosis change in the course of treatment, to correlate both the healthcare dollars spent, and the clinical outcome.

Recent Events

At a special meeting of our stockholders held on January 30, 2018, the Company's Stockholders voted in favour of approving (i) for purposes of complying with applicable NASDAQ Listing Rules, (a) the potential issuance of more than 20% of our common stock pursuant to the November 2017 Offering and (b) the terms of the Series C Convertible Preferred Stock and warrants to purchase common stock sold in

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the November 2017 Offering, and (ii) an amendment and restatement of the Company's 2017 Stock Option and Incentive Plan, or the 2017 Plan, to (a) increase the aggregate number of shares authorized for issuance under the 2017 Plan by 5,389,500 shares to 6,056,166 shares, (b) increase the maximum number of shares that may be granted in the form of stock options or stock appreciation rights to any one individual in any one calendar year and the maximum number of shares underlying any award intended to qualify as "performance-based compensation" to any one individual in any performance cycle, in each case to 1,000,000 shares of common stock, (c) increase the aggregate number of shares authorized for issuance under the 2017 Plan as incentive stock options to 6,056,166 shares, cumulatively increased on January 1, 2019 and on each January 1 thereafter by the lesser of the annual increase for such year or 500,000 shares, and (d) add an "evergreen" provision, pursuant to which the aggregate number of shares authorized for issuance under the 2017 Plan will be automatically increased each year beginning on January 1, 2019 by 5% of the number of shares of common stock issued and outstanding on the immediately preceding December 31, or such lesser number of shares determined by our Board of Directors or Compensation Committee.

We expect revenue for the quarter ended December 31, 2017 will be approximately $0.9 million, compared to $0.3 million in the quarter ended September 30, 2017, and compared to $0.3 million for the quarter ended December 31, 2016. This estimated revenue represents a three-fold increase from the previous quarter, as well as an increase of 200% from the year-over-year fourth quarter of 2016.

The financial data for the quarter ended December 31, 2017 set forth above is preliminary and is based on information available to management as of the date of this prospectus and is subject to completion by management of our financial statements for the quarter ended December 31, 2017. Our independent registered public accountants have not audited, reviewed or performed any procedures with respect to such preliminary financial data and accordingly do not express an opinion or any other form of assurance with respect thereto.

Merger Transaction

On June 29, 2017, the Company (then known as Transgenomic, Inc., or Transgenomic), completed its merger, or the Merger, with Precipio Diagnostics, LLC, a privately held Delaware limited liability company, or Precipio, in accordance with the terms of the Agreement and Plan of Merger, or the Merger Agreement, dated October 12, 2016, as amended on February 2, 2017 and June 29, 2017, by and among Transgenomic, Precipio and New Haven Labs Inc., or Merger Sub, a wholly-owned subsidiary of Transgenomic. Pursuant to the Merger Agreement, Merger Sub merged with and into Precipio, with Precipio surviving the Merger as a wholly-owned subsidiary of the combined company. In connection with the Merger, the Company changed its name from Transgenomic, Inc. to Precipio, Inc. and effected a 1-for-30 reverse stock split of its common stock.

Company Information

We were incorporated under the laws of the State of Delaware in March 1997. Our principal executive office is located at 4 Science Park, New Haven, Connecticut, 06511, and our telephone number is (203) 787-7888. Our website address is www.precipiodx.com. We do not incorporate the information on or accessible through our website into this prospectus, and you should not consider any information on, or that can be accessed through, our website as part of this prospectus. Our current and future annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and other filings with the SEC are available, free of charge, through our website as soon as reasonably practicable after we electronically file such materials with, or furnish them to, the SEC. Our SEC filings can be accessed through the investors section of our website. The information contained on, or accessible through, our website is not intended to be part of this prospectus or any report we file with, or furnish to, the SEC and incorporated by reference herein. Our common stock trades on the NASDAQ Capital Market, or NASDAQ, under the symbol "PRPO."

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THE OFFERING	
Common stock offered by us	Shares of common stock, $0.01 par value per share, with an aggregate offering price of up to $8,000,000
Manner of offering	"At-the-market" offering that may be made from time to time. See "Plan of Distribution" on page S-29
Use of proceeds	We expect the net proceeds from this offering will be approximately $7.6 million, after deducting the offering expenses payable by us. We intend to use the net proceeds from this offering for the growth of our sales force and business development team, progression of our product development and for working capital and other general corporate purposes. See "Use of Proceeds" on page S-14 of this prospectus supplement.
NASDAQ Capital Market symbol	"PRPO"
Risk factors	This investment involves a high degree of risk. See "Risk Factors" beginning on page S-9 of this prospectus supplement.

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RISK FACTORS

Any investment in our securities involves a high degree of risk. In addition to the other information included or incorporated by reference in this prospectus supplement and the accompanying prospectus, you should carefully consider the important factors set forth under the heading "Risk Factors" in our Quarterly Reports on Form 10-Q for the quarters ended June 30, 2017 and September 30, 2017, filed with the SEC on August 22, 2017 and November 20, 2017, respectively, and incorporated herein by reference, as well as any updates thereto contained in subsequent filings with the SEC or any applicable prospectus supplement or free writing prospectus, before investing in our securities. For further details, see the sections titled "Where You Can Find More Information" and "Incorporation of Certain Documents by Reference" in this prospectus supplement.

Any of the risk factors set forth below or referred to above could significantly and negatively affect our business, results of operations or financial condition, which may lower the trading price of our common stock.

Risks Related to our Business and Strategy

We have incurred losses since our inception and expect to incur losses for the foreseeable future. We cannot be certain that we will achieve or sustain profitability.

We have incurred losses since our inception and expect to incur losses in the future. As of September 30, 2017 and December 31, 2016, we have an accumulated total deficit of approximately $21.5 million and $10.8 million, respectively. For the nine months ended September 30, 2017 and the fiscal year ended December 31, 2016, we had a net loss and comprehensive loss attributable to common stockholders of approximately $19.8 million and $4.1 million, respectively. To date, we have experienced negative cash flow from development of our diagnostic technology, as well as from the costs associated with establishing a laboratory and building a sales force to market our products and services. We expect to incur substantial net losses for the foreseeable future to further develop and commercialize our diagnostic technology. We also expect that our selling, general and administrative expenses will continue to increase due to the additional costs associated with market development activities and expanding our staff to sell and support our products. Our ability to achieve or, if achieved, sustain profitability is based on numerous factors, many of which are beyond our control, including the market acceptance of our products, competitive product development and our market penetration and margins. We may never be able to generate sufficient revenue to achieve or, if achieved, sustain profitability.

Because of the numerous risks and uncertainties associated with further development and commercialization of our diagnostic technology and any future tests, we are unable to predict the extent of any future losses or when we will become profitable, if ever. We may never become profitable and you may never receive a return on an investment in our securities. An investor in our securities must carefully consider the substantial challenges, risks and uncertainties inherent in the development and commercialization of tests in the medical diagnostic industry. We may never successfully commercialize our diagnostic technology or any future tests, and our business may fail.

We will need to raise substantial additional capital to commercialize our diagnostic technology, and our failure to obtain funding when needed may force us to delay, reduce or eliminate our product development programs or collaboration efforts.

As of September 30, 2017, our cash balance was $0.4 million and our working capital was approximately negative $12.6 million. Due to our recurring losses from operations and the expectation that we will continue to incur losses in the future, we will be required to raise additional capital to complete the development and commercialization of our current product candidates and to pay off our obligations. To date, to fund our operations and develop and commercialize our products, we have relied primarily on equity and debt financings. When we seek additional capital, we may seek to sell additional equity and/or debt securities or to obtain a credit facility, which we may not be able to do on favorable terms, or at all. Our ability to obtain additional financing will be subject to a number of factors, including market conditions, our operating performance and investor sentiment. If we are unable to raise additional capital when required or on acceptable terms, we may have to significantly delay, scale back or discontinue the

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development and/or commercialization of one or more of our product candidates, restrict or cease our operations or obtain funds by entering into agreements on unattractive terms.

Recurring operating losses raise substantial doubt about our ability to continue as a going concern.

We have incurred losses since our inception and expect to incur losses in the future. As of September 30, 2017 and December 31, 2016, we have an accumulated total deficit of approximately $21.5 million and $10.8 million, respectively.

The audit report issued by our independent registered public accounting firm included in the Precipio, Inc. Form 10-K for financial statements for the fiscal year ended December 31, 2016 states that our independent registered public accounting firm has substantial doubt in our ability to continue as a going concern due to the risk that we may not have sufficient cash and liquid assets at December 31, 2016 to cover our operating and capital requirements for the next 12 month period from issuance of the Form 10-K. In addition, the audit report issued by our independent registered public accounting firm for Precipio Diagnostics, LLC for financial statements for the fiscal year ended December 31, 2016, as filed with the Securities and Exchange Commission on Form 8-K/A on July 31, 2017, states that our independent registered public accounting firm has substantial doubt in Precipio Diagnostic LLC's ability to continue as a going concern.

Our ability to continue as a going concern is dependent upon a combination of achieving our business plan, including generating additional revenue, and raising additional financing to meet our debt obligations and paying liabilities arising from normal business operations when they come due. There remains substantial doubt about our ability to continue as a going concern. There can be no assurance that we will be able to successfully achieve our initiatives summarized above in order to continue as a going concern.

Risks Related to Ownership of our Securities

We expect that our stock price may fluctuate significantly.

There has been, and continues to be, a limited public market for our common stock, and an active trading market for our common stock has not and may never develop or, if developed, be sustained. The trading price of our common stock may be highly volatile and could be subject to wide fluctuations in response to various factors, some of which are beyond our control. These factors include:

- actual or anticipated fluctuations in our financial condition and operating results;
- actual or anticipated changes in our growth rate relative to our competitors;
- competition from existing products or new products that may emerge;
- announcements by us, our academic institution partners, or our competitors of significant acquisitions, strategic partnerships, joint ventures, collaborations, or capital commitments;
- failure to meet or exceed financial estimates and projections of the investment community or that we provide to the public and the revision of any financial estimates and projections that we provide to the public;
- issuance of new or updated research or reports by securities analysts;
- fluctuations in the valuation of companies perceived by investors to be comparable to us;
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share price and volume fluctuations attributable to inconsistent trading volume levels of our shares;

- additions, transitions or departures of key management or scientific personnel;

- disputes or other developments related to proprietary rights, including patents, litigation matters, and our ability to obtain patent protection for our technologies;

- changes to reimbursement levels by commercial third-party payors and government payors, including Medicare, and any announcements relating to reimbursement levels;

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- announcement or expectation of additional debt or equity financing efforts;

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