

As filed with the Securities and Exchange Commission on October 29, 2019

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549**

**FORM S-1
REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933**

Predictive Oncology Inc.

(Exact name of registrant as specified in its charter)

Delaware
(State or jurisdiction
of incorporation or organization)

3842
(Primary Standard Industrial
Classification Code Number)

83-4360734
(I.R.S. Employer
Identification No.)

**2915 Commers Drive, Suite 900
Eagan, Minnesota 55121
(651) 389-4800**

(Address and telephone number of registrant's principal executive offices and principal place of business)

**Bob Myers
Chief Financial Officer
Predictive Oncology Inc.
2915 Commers Drive, Suite 900
Eagan, Minnesota 55121
(651) 389-4800**

(Name, address and telephone number of agent for service)

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Approximate date of commencement of proposed sale to the public: From time to time on or after the effective date of this Registration Statement.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box:

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a 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. (Check one)

Large accelerated filer

Non-accelerated filer

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 7(a)(2)(B) of Securities Act.

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered	Amount to be Registered(1)	Proposed Maximum Offering Price Per Security (1)(2)	Proposed Maximum Aggregate Offering Price	Amount of Registration Fee (2)
Common stock, \$0.01 par value per share	1,139,423	\$4.20	\$4,785,576.60	\$621.17

- (1) Amounts reflect a one-for-ten reverse stock split effective for trading purposes as of October 29, 2019. Pursuant to Rule 416 under the Securities Act of 1933, as amended, this registration statement shall be deemed to cover additional securities of the same class as the securities covered by this registration statement issued or issuable prior to completion of the distribution of the securities covered by this registration statement as a result of a split of, or a stock dividend on, the registered securities.
- (2) Paid herewith. Estimated solely for the purpose of computing the registration fee. Pursuant to Rule 457(c) under the Securities Act of 1933, as amended, the proposed maximum offering price per share is based on the average of the high and low sale prices of the registrant's common stock on the Nasdaq Capital Market on October 28, 2019, as adjusted for the one-for-ten reverse stock split

The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the Registration Statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.



The information in this prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and is not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

PRELIMINARY PROSPECTUS, SUBJECT TO COMPLETION

DATED OCTOBER 29, 2019

PREDICTIVE ONCOLOGY INC.

1,139,423 Shares

Common Stock

This prospectus relates to the offer and resale of up to 1,139,423 shares of our common stock, par value \$0.01 per share, by Oasis Capital, LLC (“Oasis Capital”), the selling stockholder. Oasis Capital has agreed to purchase from us pursuant to the terms and conditions of an Equity Purchase Agreement that we entered into with Oasis Capital on October 24, 2019 (the “Equity Purchase Agreement”). Subject to the terms and conditions of the Equity Purchase Agreement, we have the right to “put,” or sell, at our discretion, up to \$15,000,000 worth of shares of our common stock to Oasis Capital. This arrangement is also sometimes referred to herein as the “Equity Line” or the “Oasis Equity Line.”

For more information about the selling stockholder, please see the section of this prospectus entitled “Selling Stockholder” beginning on page 15.

The selling stockholder may sell any shares offered under this prospectus at fixed prices, prevailing market prices at the time of sale, at varying prices or negotiated prices.

Oasis Capital is an “underwriter” within the meaning of the Securities Act of 1933, as amended (the “Securities Act”), in connection with the resale of our common stock under the Equity Line, and any broker-dealers or agents that are involved in such resales may be deemed to be “underwriters” within the meaning of the Securities Act in connection therewith. In such event, any commissions received by such broker-dealers or agents and any profit on the resale of the shares purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act. For more information, please see the section of this prospectus titled “Plan of Distribution” beginning on page 17.

We will not receive any proceeds from the resale of shares of common stock by the selling stockholder. We will, however, receive proceeds from the sale of shares directly to Oasis Capital pursuant to the Equity Line.

Our common stock is listed on the Nasdaq Capital Market under the symbol “POAI.” On October 28, 2019, the last reported per share price of our common stock on the Nasdaq Capital Market was \$4.02 per share, as adjusted for a one-for-ten reverse stock split effective for trading purposes as of October 29, 2019 (the “Reverse Split”). The numbers of shares of common stock and prices per share indicated in this prospectus have been adjusted to reflect the Reverse Split.

Investing in our common stock involves a high degree of risk. Before deciding whether to invest in our securities, you should consider carefully the risks that we have described beginning on page 6 of this prospectus under the caption “Risk Factors” and in the documents incorporated by reference into this prospectus.

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

The date of this prospectus is _____, 20__.

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we have filed with the Securities and Exchange Commission (the “SEC”) pursuant to which the selling stockholder named herein may, from time to time, offer and sell or otherwise dispose of the securities covered by this prospectus. You should not assume that the information contained in this prospectus is accurate on any date subsequent to the date set forth on the front cover of this prospectus or that any information we have incorporated by reference is correct on any date subsequent to the date of the document incorporated by reference, even though this prospectus is delivered or securities are sold or otherwise disposed of on a later date. It is important for you to read and consider all information contained in this prospectus, including the Information Incorporated by Reference herein, in making your investment decision. You should also read and consider the information in the documents to which we have referred you under the captions “Where You Can Find More Information” and “Incorporation of Information by Reference” in this prospectus.

Neither we nor the selling stockholder have authorized any dealer, salesman or other person to give any information or to make any representation other than those contained or incorporated by reference in this prospectus. You should not rely upon any information or representation not contained or incorporated by reference in this prospectus. This prospectus does not constitute an offer to sell or the solicitation of an offer to buy any of our securities other than the securities covered hereby, nor does this prospectus constitute an offer to sell or the solicitation of an offer to buy any securities in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction. Persons who come into possession of this prospectus in jurisdictions outside the United States are required to inform themselves about, and to observe, any restrictions as to the offering and the distribution of this prospectus applicable to those jurisdictions.

We further note that the representations, warranties and covenants made in any agreement that is filed as an exhibit to any document that is incorporated by reference in the prospectus were made solely for the benefit of the parties to such agreement, including, in some cases, for the purpose of allocating risk among the parties to such agreements, and should not be deemed to be a representation, warranty or covenant to you. Moreover, such representations, warranties or covenants were accurate only as of the date when made. Accordingly, such representations, warranties and covenants should not be relied on as accurately representing the current state of our affairs.

Unless the context otherwise requires, references in this prospectus to “Predictive,” the “Company,” “we,” “us,” and “our” refer to Predictive Oncology Inc.

You should rely only on the information contained or incorporated by reference, as applicable, in this prospectus, any prospectus supplement, or other offering materials related to an offering of securities described in this prospectus. We have not authorized anyone to provide you with different or additional information. If anyone provides you with different or additional information, you should not rely on it.

You should not assume that the information contained or incorporated by reference, as applicable, in this prospectus, any prospectus supplement, or other offering materials related to an offering of securities described in this prospectus is accurate as of any date other than the date of that document. Neither the delivery of this prospectus, any prospectus supplement or other offering materials related to an offering of securities described in this prospectus, nor any distribution of securities pursuant to this prospectus, any such prospectus supplement, or other offering materials shall, under any circumstances, create any implication that there has been no change in the information set forth or incorporated by reference, as applicable, in this prospectus, any such prospectus supplement or other offering materials since the date of each such document. Our business, financial condition, results of operations and prospects may have changed since those dates.

This prospectus does not constitute, and any prospectus supplement or other offering materials related to an offering of securities described in this prospectus will not constitute, an offer to sell, or a solicitation of an offer to purchase, the offered securities in any jurisdiction to or from any person to whom or from whom it is unlawful to make such offer or solicitation in such jurisdiction.

THE COMPANY

This summary contains basic information about us. You should read the entire prospectus carefully, especially the risks of investing in our securities discussed under “Risk Factors.” Some of the statements contained in this prospectus, including statements under this summary and “Risk Factors” are forward-looking statements and may involve a number of risks and uncertainties. We note that our actual results and future events may differ significantly based upon a number of factors. You should not put undue reliance on the forward-looking statements in this document, which speak only as of the date on the cover of this prospectus. References to “we,” “our,” “us,” the “Company,” or “Predictive” refer to Predictive Oncology Inc., a Delaware corporation.

Business Overview

Predictive Oncology Inc. (NASDAQ: POAI) operates in two business areas: first, applying artificial intelligence to personalized medicine and drug discovery to provide personalized medicine solutions for patients and clinicians as well as clients in the pharmaceutical, diagnostic and biotech industries, and second, production of the FDA-approved STREAMWAY® System for automated, direct-to-drain medical fluid disposal.

Predictive’s medicine business is committed to improving the effectiveness of cancer therapy using the power of artificial intelligence (AI) applied to rich data disease databases. This business launched with Predictive’s acquisition of 25% of the capital stock of Helomics Holding Corporation (“Helomics”), a precision medicine company and integrated clinical contract research organization whose mission is to improve patient care by partnering with pharmaceutical, diagnostic and academic organizations to bring innovative clinical products and technologies to the marketplace. In addition to its proprietary precision diagnostics for oncology, Helomics offers boutique Contract Research Organization (CRO) services that leverage their patient-derived tumor models, coupled to a wide range of multi-omics assays (genomics, proteomics and biochemical), and a proprietary bioinformatics platform (D-CHIP) to provide a tailored solution to its clients’ specific needs.

Predictive has also formed a subsidiary, TumorGenesis, to pursue a new rapid approach to growing tumors in the laboratory, which essentially “fools” the cancer cells into thinking they are still growing inside the patient. Predictive and Helomics have also announced a proposed joint venture with GLG Pharma focused on using their combined technologies to bring personalized medicines and testing to ovarian and breast cancer patients, especially those who present with ascites fluid (over one-third of patients). The growth strategy in this business includes securing new partnerships and considering acquisitions in the precision medicine space.

On October 26, 2018, Predictive entered into an Amended and Restated Agreement and Plan of Merger (the “Merger Agreement”) with Helomics Acquisition, Inc., a wholly owned subsidiary of the Company (“Merger Sub”), and Helomics. The Merger Agreement contemplated a forward triangular merger whereby Helomics would merge with and into Merger Sub, with Merger Sub surviving the Merger as a wholly-owned operating subsidiary of Predictive (the “Merger”). The Merger was completed on April 4, 2019 and provided the Company, as the sole owner of Helomics, with full access to Helomics’ suite of AI, precision diagnostic and integrated CRO capabilities, which improve patient care and advance the development of innovative clinical products and technologies for the treatment of cancers.

Sold through the Skyline Medical business of Predictive Oncology, The STREAMWAY System virtually eliminates staff exposure to blood, irrigation fluid and other potentially infectious fluids found in the healthcare environment. Antiquated manual fluid handling methods that require hand carrying and emptying filled fluid canisters present an exposure risk and potential liability. Skyline Medical’s STREAMWAY System fully automates the collection, measurement, and disposal of waste fluids and is designed to: 1) reduce overhead costs to hospitals and surgical centers; 2) improve compliance with OSHA and other regulatory agency safety guidelines; 3) improve efficiency in the operating room, and radiology and endoscopy departments, thereby leading to greater profitability; and 4) provide greater environmental stewardship by helping to eliminate the approximately 50 million potentially disease-infected canisters that go into landfills each year in the U.S.

For more information regarding Predictive’s businesses, please carefully consider the information contained in our periodic reports filed with the SEC, which are incorporated by reference into this prospectus. Before making an investment decision, you should carefully consider such information as well as other information we include or incorporate by reference into this prospectus.

Recent Developments

Special Stockholders Meeting. On October 23, 2019, we held a special meeting of stockholders at which the following actions were taken: (1) approval of an amendment of the Company's certificate of incorporation to effect a reverse stock split of the outstanding shares of its common stock at a ratio of not less than one-for-two (1:2) and not more than one-for-fifteen (1:15) (the "Reverse Split Proposal"); (2) approval, pursuant to Nasdaq Listing Rule 5635, of the issuance of shares of common stock of the Company in excess of applicable share caps upon conversion of the outstanding shares of Series E Convertible Preferred Stock; and (3) approval, pursuant to Nasdaq Listing Rule 5635, of the issuance of shares of common stock of the Company pursuant to an equity line of credit arrangement of up to \$15.0 million, when and if negotiated with a specific investor.

Reverse Stock Split. On October 25, 2019, following the approval of the Reverse Split Proposal, we filed an amendment to our Amended and Restated Certificate of Incorporation in order to effect a one-for-ten reverse stock split (the "Reverse Split"), effective for trading purposes on October 29, 2019. The number of authorized shares of common stock remains at 100,000,000. The purpose of the Reverse Split is to prevent our stock from being delisted from Nasdaq. As described in a Current Report on Form 8-K filed on May 17, 2019, we must regain compliance with Nasdaq's minimum bid price requirement no later than November 11, 2019, and we believe the Reverse Split is necessary to assure compliance with such requirement.

The numbers of shares of common stock and prices per share indicated in this prospectus have been adjusted to reflect the Reverse Split.

Equity Purchase Agreement. On October 24, 2019 (the "Execution Date"), the Company entered into an Equity Purchase Agreement (the "Equity Purchase Agreement") with Oasis Capital, LLC ("Oasis Capital"), providing for an equity financing facility (the "Equity Line"). The Equity Purchase Agreement provides that, upon the terms and subject to the conditions in the Equity Purchase Agreement, Oasis Capital is committed to purchase shares ("Put Shares") having an aggregate value of up to \$15.0 million (the "Maximum Commitment Amount") of our common stock during the period (the "Commitment Period") commencing on the Execution Date, and ending on the earlier of (i) the date on which Oasis Capital shall have purchased Put Shares equal to the Maximum Commitment Amount, (ii) October 24, 2022, or (iii) written notice of termination by the Company to Oasis Capital (which shall not occur at any time that Oasis Capital holds any of the Put Shares). In consideration for Oasis Capital's execution and delivery of, and performance under the Equity Purchase Agreement, the Company also issued to Oasis Capital 104,652 shares (the "Commitment Shares").

Under the terms of the Equity Purchase Agreement, Oasis Capital will not be obligated to purchase Put Shares unless and until certain conditions ("Closing Conditions") are met, including but not limited to a registration statement on Form S-1 being effective which registers Oasis Capital's resale of any Put Shares purchased by it under the Equity Line and the Commitment Shares. From time to time during the Commitment Period, provided that the Closing Conditions are satisfied, we may, in our sole discretion, provide Oasis Capital with a put notice (each, a "Put Notice"), to purchase a specified number of Put Shares. Each Put Notice may be either an Option 1 Put Notice or an Option 2 Put Notice.

Subject to certain limitations and conditions, an "Option 1 Put Notice" will require Oasis Capital to purchase the specified number of Put Shares up to the Option 1 Maximum Put Amount. The "Option 1 Maximum Put Amount" means: (a) if, on the trading day when the Put Notice is delivered (the "Put Date"), the closing bid price of our common stock on Nasdaq is below \$10.00, then "Option 1 Maximum Put Amount" shall mean the lesser of (i) 10,000 shares, or (ii) twenty percent (20%) of the average trading volume of our common stock in the ten (10) trading days immediately preceding the respective Put Date (the "Average Daily Trading Volume"); and (b) if, on the Put Date, the closing bid price of our common stock on Nasdaq is \$10.00 or greater but less than \$15.00, then "Option 1 Maximum Put Amount" shall mean the lesser of (i) 12,500 shares, or (ii) twenty percent (20%) of the Average Daily Trading Volume; and (c) if, on the Put Date, the closing bid price of our common stock on Nasdaq is \$15.00 or greater but less than \$20.00, then "Option 1 Maximum Put Amount" shall mean the lesser of (i) 15,000 shares, or (ii) twenty percent (20%) of the Average Daily Trading Volume; and (d) if, on the Put Date, the closing bid price of our common stock on Nasdaq is \$20.00 or greater, then "Option 1 Maximum Put Amount" shall mean the lesser of (i) 20,000 shares, or (ii) twenty percent (20%) of the Average Daily Trading Volume. The purchase price (the "Option 1 Purchase Price") will be equal to the lesser of (i) the one (1) lowest traded price of our common stock on Nasdaq on the date on which Oasis Capital receives the Put Shares (the "Clearing Date"), or (ii) the average of the three (3) lowest closing sale prices of our common stock on Nasdaq during the twelve (12) consecutive trading days immediately preceding the Clearing Date associated with the applicable Put Notice during which the Option 1 Purchase Price of our common stock is valued.

The Company may only deliver an Option 2 Put Notice if an Option 1 Put has been previously and effectively processed and its clearing date is the same day as the Put Notice for the subject Option 2 Put. Subject to certain other limitations and conditions, an “Option 2 Put Notice” will require Oasis Capital to purchase the specified number of Put Shares up to up to the Option 2 Maximum Put Amount. The “Option 2 Maximum Put Amount” means the lesser of (i) such amount that equals ten percent (10%) of the daily trading volume of our common stock on the Put Date, and (ii) Two Hundred Thousand Dollars (\$200,000.00). The purchase price (the “Option 2 Purchase Price”) will be equal to the lesser of (i) 91% of the one (1) lowest traded price of our common stock on Nasdaq during the ten (10) consecutive trading days immediately preceding the trading day associated with the applicable Put Notice during which the Option 2 Purchase Price of our common stock is valued, or (ii) 93% of the volume weighted average price on the Clearing Date, or (iii) 93% of the closing bid price of our common stock on Nasdaq on the Clearing Date.

The Equity Purchase Agreement contains customary representations, warranties and agreements by the Company, customary conditions to closing, indemnification obligations of the Company, including for liabilities under the Securities Act, other obligations of the parties and termination provisions.

With regard to the purchase and resale of the Put Shares, Oasis Capital is an “underwriter” within the meaning of the Securities Act of 1933, as amended. Any broker-dealers or agents that are involved in resales of the Put Shares may be deemed “underwriters.” The Company will receive net proceeds from the sale of the Put Shares directly from Oasis Capital pursuant to the Equity Purchase Agreement, however, the Company will not receive any proceeds from the resale of the Put Shares by Oasis Capital thereafter.

The foregoing description of the terms and conditions of the Equity Purchase Agreement is not complete and is qualified in its entirety by the full text of the Equity Purchase Agreement, which was filed as Exhibit 10.1 to a Current Report on Form 8-K filed on October 25, 2019 and is incorporated herein by this reference.

Registration Rights Agreement. In connection with the Equity Line, we also entered into a Registration Rights Agreement, dated the Execution Date, with Oasis Capital (the “Registration Rights Agreement”), pursuant to which we agreed to register for resale any Put Shares purchased by Oasis Capital under the Equity Line and the Commitment Shares (the “Registrable Securities”) in an initial registration statement (the “Initial Registration Statement”) on Form S-1 to be filed with the Securities and Exchange Commission (the “SEC”) by the fifth day after the Execution Date. The Company is obligated to use its reasonable best efforts to have the Initial Registration Statement and any amendment thereto declared effective by the SEC at the earliest possible date. In the event the number of shares available under the Initial Registration Statement is insufficient to cover all of the Registrable Securities, the Company must amend the Initial Registration Statement or file a new registration statement, so as to cover all of the Registrable Securities as soon as practicable, but in any event not later than ten (10) business days after the necessity therefor arises, subject to any limits that may be imposed by the SEC pursuant to Rule 415 under the Securities Act of 1933, as amended. As explained above, the effectiveness of the Initial Registration Statement is a condition precedent to our ability to sell Put Shares to Oasis Capital under the Equity Purchase Agreement.

The foregoing description of the terms and conditions of the Registration Rights Agreement is not complete and is qualified in its entirety by the full text of the Registration Rights Agreement, which was filed as Exhibit 10.2 to a Current Report on Form 8-K filed on October 25, 2019 and is incorporated herein by this reference.

Risks

We are subject to a number of risks. You should read the “Risk Factors” section of this prospectus beginning on page 6 for a discussion of factors to consider carefully before deciding to invest in shares of our common stock.

Corporate Information

We were originally incorporated on April 23, 2002 in Minnesota as BioDrain Medical, Inc. Effective August 6, 2013, BioDrain Medical, Inc. changed its name to Skyline Medical Inc. Pursuant to an Agreement and Plan of Merger effective December 16, 2013, Skyline Medical Inc. merged with and into a Delaware corporation with the same name that was its wholly-owned subsidiary, with such Delaware corporation as the surviving corporation of the merger. On August 31, 2015, Skyline Medical Inc. completed a successful offering and concurrent uplisting to The Nasdaq Capital Market. On February 1, 2018, Skyline Medical Inc. filed with the Secretary of State of Delaware a Certificate of Amendment to the Certificate of Incorporation to change its corporate name from Skyline Medical Inc. to “Precision Therapeutics Inc.” On June 10, 2019, Precision Therapeutics Inc. filed with the Secretary of State of Delaware a Certificate of Amendment to the Certificate of Incorporation to change its corporate name from Precision Therapeutics Inc. to “Predictive Oncology Inc.” Because of this change, the Company’s common stock traded under the new ticker symbol “POAI,” effective June 13, 2019. Skyline Medical remains as a division of Predictive and principally manufactures the STREAMWAY System.

Our address is 2915 Commers Drive, Suite 900, Eagan, Minnesota 55121. Our telephone number is (651) 389-4800, and our website address is www.precisiontherapeutics.com. The information contained on, or that can be accessed through, our website is not part of this prospectus.

OFFERING SUMMARY

Common stock that may be offered by selling stockholder	1,139,423 shares
Common stock outstanding before this offering	3,887,986 shares (1)
Common stock to be outstanding after this offering	5,027,409 shares (2)

Use of proceeds

We will not receive any proceeds from the resale or other disposition of the shares covered by this prospectus by the selling stockholder. We will receive proceeds from the sale of shares to Oasis Capital. Oasis Capital has committed to purchase up to \$15,000,000 worth of shares of our common stock (the "Put Shares") over a period of time terminating on the earlier of (a) the date on which Oasis Capital shall have purchased Put Shares for an aggregate purchase price of \$15,000,000, (b) October 24, 2022 and (c) written notice of termination by the Company to Oasis Capital (which shall not occur at any time that Oasis Capital holds any of the Put Shares).

In the case of an Option 1 Put, Oasis Capital will pay a purchase price equal to the lesser of (i) the one (1) lowest traded price of our common stock on Nasdaq on the date on which Oasis Capital receives the Put Shares, or (ii) the average of the three (3) lowest closing sale prices of the common stock on Nasdaq during the twelve (12) consecutive trading days immediately preceding the Clearing Date. In the case of an Option 2 Put, Oasis Capital will pay a purchase price equal to the lesser of (i) 91% of the one (1) lowest traded price of our common stock on Nasdaq during the ten (10) consecutive trading days immediately preceding the trading day associated with the applicable put notice, or (ii) 93% of the volume weighted average price on the Clearing Date, or (iii) 93% of the closing bid price of our common stock on Nasdaq on the Clearing Date.

In order to exercise the put, certain conditions must be met at each put notice date including, but not limited to a registration statement on Form S-1 being effective which registers Oasis Capital's resale of any Put Shares purchased by it and the 104,652 shares of our common stock we issued to Oasis Capital upon signing the Equity Purchase Agreement (the "Commitment Shares").

For further information, see “The Offering” beginning on page 13.

Plan of Distribution

The selling stockholder may, from time to time, sell any or all of their shares of our common stock on the stock exchange, market or trading facility on which the shares are traded or in private transactions. These sales may be at fixed or negotiated prices.

For further information, see “Plan of Distribution” beginning on page 17.

Risk factors

You should read the “Risk Factors” section of this prospectus and the other information in this prospectus for a discussion of factors to consider carefully before deciding to invest in shares of our common stock.

- (1) The number of shares of our common stock issued and outstanding as of October 29, 2019. The numbers of shares of common stock and prices per share indicated in this preliminary prospectus have been adjusted in order to reflect a the Reverse Split.
- (2) Assumes the issuance of the 1,139,423 shares that are issuable under the Equity Purchase Agreement with Oasis Capital and offered under this prospectus.

RISK FACTORS

An investment in our securities involves a number of risks. Before deciding to invest in our securities, you should carefully consider the risks described below and discussed under the section captioned “Risk Factors” contained in our Annual Report on Form 10-K for the year ended December 31, 2018 and our Quarterly Report on Form 10-Q for the quarter ended June 30, 2019, which are incorporated by reference in this prospectus, together with the additional risk factor described under “Additional Risk Factor” below, other information in this prospectus, the information and documents incorporated by reference herein, and in any prospectus supplement or free writing prospectus that we have authorized for use in connection with an offering. If any of these risks actually occurs, our business, financial condition, results of operations or cash flow could be harmed. This could cause the trading price of our common stock to decline, resulting in a loss of all or part of your investment. The risks described in the documents referenced above are not the only ones that we face. Additional risks not presently known to us or that we currently deem immaterial may also affect our business.

Additional Risk Factor

The Company’s certificate of incorporation, as amended, provides that, to the fullest extent permitted by law, the Court of Chancery of the State of Delaware will be the exclusive forum for certain legal actions between the Company and its stockholders, which could limit the Company’s stockholders’ ability to obtain a judicial forum viewed by the stockholders as more favorable for disputes with the Company or the Company’s directors, officers or employees.

The Company’s certificate of incorporation, as amended, provides that, to the fullest extent permitted by law, the Court of Chancery of the State of Delaware shall be the sole and exclusive forum for (i) any derivative action or proceeding brought on behalf of the corporation, (ii) any action asserting a claim of breach of a fiduciary duty owed by any director or officer of the corporation to the corporation or the corporation’s stockholders, (iii) any action asserting a claim against the corporation arising pursuant to any provision of the General Corporation Law or the corporation’s Certificate of Incorporation or Bylaws, or (iv) any action asserting a claim against the corporation governed by the internal affairs doctrine. This choice of forum provision does not preclude or contract the scope of exclusive federal or concurrent jurisdiction for any actions brought under the Securities Act or the Exchange Act. Accordingly, our exclusive forum provision will not relieve us of our duties to comply with the federal securities laws and the rules and regulations thereunder, and our stockholders will not be deemed to have waived our compliance with these laws, rules and regulations.

Any person or entity purchasing or otherwise acquiring any interest in any of our securities shall be deemed to have notice of and consented to these provisions. These exclusive-forum provisions may limit a stockholder's ability to bring a claim in a judicial forum of its choosing 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 the choice of forum provision contained in our certificate of incorporation, as amended, to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving such action in other jurisdictions, which could harm our business, results of operations, and financial condition. Even if we are successful in defending against these claims, litigation could result in substantial costs and be a distraction to the Company's management.

NOTE REGARDING FORWARD-LOOKING STATEMENTS

Some of the statements made in this prospectus are “forward-looking statements” that indicate certain risks and uncertainties related to the Company, many of which are beyond the Company’s control. The Company’s actual results could differ materially and adversely from those anticipated in such forward-looking statements as a result of certain factors, including those set forth below and elsewhere in this report. Important factors that may cause actual results to differ from projections include:

- The Company will not be able to continue operating without additional financing;
- Current negative operating cash flows;
- The terms of any further financing, which may be highly dilutive and may include onerous terms;
- Risks related to the recent Merger with Helomics; possible failure to realize anticipated benefits of the Merger; costs associated with the Merger may be higher than expected; the Merger may result in the disruption of the Company’s and Helomics’ existing businesses; and distraction of management and diversion of resources; delay in completion of the merger may significantly reduce the expected benefits;
- Risks related to the Company’s proposed joint ventures, including the need to negotiate the definitive agreements for the joint ventures; possible failure to realize anticipated benefits of the joint ventures; and costs of providing funding to the joint ventures
- Current negative operating cash flows, as well as the impact on our cash levels of advances to our strategic partners and possible future advances to such organizations or others;
- The terms of any further financing, which may be highly dilutive and may include onerous terms;
- Risk that we will be unable to protect our intellectual property or claims that we are infringing on others’ intellectual property;
- The impact of competition, the obtaining and maintenance of any necessary regulatory clearances applicable to applications of the Company’s technology;
- Inability to raise sufficient additional capital to operate our business;
- Risk that we never become profitable if our product is not accepted by potential customers;
- Possible impact of government regulation and scrutiny;
- Unexpected costs and operating deficits, and lower than expected sales and revenues, if any;
- Adverse economic conditions;
- Adverse results of any legal proceedings;
- The volatility of our operating results and financial condition;
- Inability to attract or retain qualified senior management personnel, including sales and marketing personnel;
- The potential delisting of our common stock from the Nasdaq Capital Market if we do not continue to meet applicable listing standards; and
- Other specific risks that may be alluded to in this prospectus or documents incorporated herein.

In some cases, you can identify forward-looking statements by terms such as “may”, “will”, “should”, “could”, “would”, “expects”, “plans”, “anticipates”, “believes”, “estimates”, “projects”, “predicts”, “potential” and similar expressions intended to identify forward-looking statements. These statements reflect our current views with respect to future events and are based on assumptions and subject to risks and uncertainties. Given these uncertainties, you should not place undue reliance on these forward-looking statements. We discuss many of these risks in greater detail under the heading “Risk Factors” beginning on page [___] of this prospectus and in our SEC filings. Also, these forward-looking statements represent our estimates and assumptions only as of the date of the document containing the applicable statement.

You should read this prospectus, the documents we have filed with the SEC that are incorporated by reference and any free writing prospectus that we have authorized for use in connection with this offering completely and with the understanding that our actual future results may be materially different from what we expect. We qualify all of the forward-looking statements in the foregoing documents by these cautionary statements.

Information regarding market and industry statistics contained in this prospectus is included based on information available to the Company that it believes is accurate. It is generally based on academic and other publications that are not produced for purposes of securities offerings or economic analysis. The Company has not reviewed or included data from all sources, and the Company cannot assure potential investors of the accuracy or completeness of the data included in this prospectus. Forecasts and other forward-looking information obtained from these sources are subject to the same qualifications and the additional uncertainties accompanying any estimates of future market size, revenue and market acceptance of products and services. The Company has no obligation to update forward-looking information to reflect actual results or changes in assumptions or other factors that could affect those statements.

USE OF PROCEEDS

We will not receive any proceeds from the sale of the shares of our common stock by the selling stockholder. However, we will receive proceeds from the sale of the shares of our common directly to Oasis Capital pursuant to the Equity Purchase Agreement. We will use these proceeds for general corporate and working capital purposes, or for other purposes that our board of directors, in its good faith, deems to be in the best interest of our Company. We have agreed to bear the expenses relating to the registration of the offer and resale by the selling stockholder of the shares being offered hereby.

DESCRIPTION OF CAPITAL STOCK

The following description summarizes the material terms of our capital stock. This summary is, however, subject to the provisions of our certificate of incorporation and bylaws. For greater detail about our capital stock, please refer to our certificate of incorporation and bylaws. For information about matters to be considered at a special stockholders meeting on October 23, 2019, which will affect our capital stock, see “The Company – Planned Special Stockholders Meeting.”

General

We are authorized to issue 100,000,000 shares of common stock, par value \$0.01 per share, and 20,000,000 shares of preferred stock, of which 2,300,000 shares are authorized as Series B Convertible Preferred Stock, par value \$0.01 per share, 3,500,000 shares are authorized as Series D Convertible Preferred Stock, par value \$0.01 per share and 350 shares are authorized as Series E Convertible Preferred Stock, par value \$0.01 per share.

Common Stock

As of October 28, 2019, we had 3,887,986 shares of common stock outstanding (adjusted to reflect the Reverse Split) held by approximately 165 stockholders of record

The holders of common stock are entitled to one vote per share on all matters to be voted upon by the stockholders, provided that no proxy shall be voted if executed more than three years prior to the date of the stockholders’ meeting except if such proxy provides for a longer period. Holders of our common stock do not have cumulative voting rights.

The holders of common stock are entitled to receive ratably any dividends that may be declared from time to time by our board of directors out of funds legally available for that purpose. In the event of our liquidation, dissolution or winding up, the holders of common stock are entitled to share ratably in all assets remaining after payment of liabilities. The common stock has no preemptive or conversion rights or other subscription rights and there are no redemption provisions applicable to our common stock. All outstanding shares of common stock are fully paid and non-assessable, and the shares of common stock offered hereby will be fully paid and not liable for further call or assessment.

Except for directors, who are elected by receiving the highest number of affirmative votes of the shares entitled to be voted for them, or as otherwise required by Delaware law, and subject to the rights of the holders of preferred stock then outstanding (if any), all stockholder action is taken by the vote of a majority of the issued and outstanding shares of common stock present at a meeting of stockholders at which a quorum consisting of a majority of the issued and outstanding shares of common stock is present in person or proxy. In the absence of a quorum for the transaction of business, any meeting may be adjourned from time to time. The stockholders present at a duly called or held meeting may continue to do business until adjournment, notwithstanding the withdrawal of enough stockholders to leave less than a quorum. Our Chairman of the Board or, in his absence, any other director designated from time to time by the board of directors, shall preside at all meetings of stockholders.

Preferred Stock

Our Board of Directors has the authority, without action by our stockholders, to designate and issue up to 20,000,000 shares of preferred stock in one or more series or classes and to designate the rights, preferences and privileges of each series or class, which may be greater than the rights of our common stock. The Board’s authority to issue preferred stock without stockholder approval could make it more difficult for a third party to acquire control of our company, and could discourage such attempt.

Information regarding the terms and outstanding shares of our current classes of preferred stock are included in the materials incorporated by reference in this prospectus.

Anti-Takeover Provisions

Delaware Law

We are subject to Section 203 of the Delaware General Corporation Law. This provision generally prohibits a Delaware corporation from engaging in any business combination with any interested stockholder for a period of three years following the date the stockholder became an interested stockholder, unless:

- prior to such date, the board of directors approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder;
- upon consummation of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding for purposes of determining the number of shares outstanding those shares owned by persons who are directors and also officers and by employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or
- on or subsequent to such date, the business combination is approved by the board of directors and authorized at an annual meeting or special meeting of stockholders and not by written consent, by the affirmative vote of at least 66 2/3% of the outstanding voting stock that is not owned by the interested stockholder.

Section 203 defines a business combination to include:

- any merger or consolidation involving the corporation and the interested stockholder;
- any sale, transfer, pledge or other disposition of 10% or more of the assets of the corporation involving the interested stockholder;
- subject to certain exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;
- any transaction involving the corporation that has the effect of increasing the proportionate share of the stock of any class or series of the corporation beneficially owned by the interested stockholder; or
- the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits provided by or through the corporation.

In general, Section 203 defines an “interested stockholder” as any entity or person beneficially owning 15% or more of the outstanding voting stock of a corporation, or an affiliate or associate of the corporation and was the owner of 15% or more of the outstanding voting stock of a corporation at any time within three years prior to the time of determination of interested stockholder status; and any entity or person affiliated with or controlling or controlled by such entity or person.

These statutory provisions could delay or frustrate the removal of incumbent directors or a change in control of our company. They could also discourage, impede, or prevent a merger, tender offer, or proxy contest, even if such event would be favorable to the interests of stockholders. In addition, note that while Delaware law permits companies to opt out of its business combination statute, our Certificate of Incorporation does not include this opt-out provision.

Certificate of Incorporation and Bylaws

Our current Certificate of Incorporation authorizes the issuance of “blank check” preferred stock that could be issued by our Board of Directors to defend against a takeover attempt. See “Preferred Stock” above.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is Corporate Stock Transfer, Inc.

Listing

The shares of our common stock are listed on The Nasdaq Capital Market under the symbol “POAL.” On October 28, 2019, the last reported sale price per share for our common stock as reported by The Nasdaq Capital Market was \$4.02 (adjusted to reflect the Reverse Split).

THE OFFERING

The selling stockholder may offer and resell up to 1,139,423 shares of our common stock, par value \$0.01 per share, pursuant to this prospectus. Such shares represent certain shares of our common stock that Oasis Capital has agreed to purchase from us pursuant to the terms and conditions of an Equity Purchase Agreement we entered into with Oasis Capital on October 24, 2019, which are described below.

Equity Purchase Agreement and Registration Rights Agreement with Oasis Capital, LLC

Subject to the terms and conditions of the Equity Purchase Agreement, we have the right to “put,” or sell, up to \$15,000,000 worth of shares of our common stock to Oasis Capital (the “Equity Line”). Oasis Capital’s purchase commitment will automatically terminate on the earlier of (a) the date on which Oasis Capital shall have Put Shares for an aggregate purchase price of \$15,000,000, (b) October 24, 2022 and (c) written notice of termination by the Company to Oasis Capital (which shall not occur at any time that Oasis Capital holds any of the Put Shares)... We have no obligation to sell any shares under the Equity Purchase Agreement.

In consideration for Oasis Capital’s execution and delivery of, and performance under the Equity Purchase Agreement, the Company also issued to Oasis Capital 104,652 shares of our common stock (the “Commitment Shares”).

Under the terms of the Equity Purchase Agreement, Oasis Capital will not be obligated to purchase Put Shares unless and until certain conditions (“Closing Conditions”) are met, including but not limited to a registration statement on Form S-1 being effective which registers Oasis Capital’s resale of any Put Shares purchased by it under the Equity Line and the Commitment Shares (together, the “Registrable Securities”). The registration statement of which this prospectus is a part, upon effectiveness, is intended to satisfy this Closing Condition.

From time to time during the Commitment Period, provided that the Closing Conditions are satisfied, we may, in our sole discretion, provide Oasis Capital with a put notice (each, a “Put Notice”), to purchase a specified number of Put Shares. Each Put Notice may be either an Option 1 Put Notice or an Option 2 Put Notice.

Subject to certain limitations and conditions, an “Option 1 Put Notice” will require Oasis Capital to purchase the specified number of Put Shares up to the Option 1 Maximum Put Amount. The “Option 1 Maximum Put Amount” means: (a) if, on the trading day when the Put Notice is delivered (the “Put Date”), the closing bid price of our common stock on Nasdaq is below \$10.00, then “Option 1 Maximum Put Amount” shall mean the lesser of (i) 10,000 shares, or (ii) twenty percent (20%) of the average trading volume of our common stock in the ten (10) trading days immediately preceding the respective Put Date (the “Average Daily Trading Volume”); and (b) if, on the Put Date, the closing bid price of our common stock on Nasdaq is \$10.00 or greater but less than \$15.00, then “Option 1 Maximum Put Amount” shall mean the lesser of (i) 12,500 shares, or (ii) twenty percent (20%) of the Average Daily Trading Volume; and (c) if, on the Put Date, the closing bid price of our common stock on Nasdaq is \$15.00 or greater but less than \$20.00, then “Option 1 Maximum Put Amount” shall mean the lesser of (i) 15,000 shares, or (ii) twenty percent (20%) of the Average Daily Trading Volume; and (d) if, on the Put Date, the closing bid price of our common stock on Nasdaq is \$20.00 or greater, then “Option 1 Maximum Put Amount” shall mean the lesser of (i) 20,000 shares, or (ii) twenty percent (20%) of the Average Daily Trading Volume. The purchase price (the “Option 1 Purchase Price”) will be equal to the lesser of (i) the one (1) lowest traded price of our common stock on Nasdaq on the date on which Oasis Capital receives the Put Shares (the “Clearing Date”), or (ii) the average of the three (3) lowest closing sale prices of our common stock on Nasdaq during the twelve (12) consecutive trading days immediately preceding the Clearing Date associated with the applicable Put Notice during which the Option 1 Purchase Price of our common stock is valued.

The Company may only deliver an Option 2 Put Notice if an Option 1 Put has been previously and effectively processed and its clearing date is the same day as the Put Notice for the subject Option 2 Put. Subject to certain other limitations and conditions, an “Option 2 Put Notice” will require Oasis Capital to purchase the specified number of Put Shares up to up to the Option 2 Maximum Put Amount. The “Option 2 Maximum Put Amount” means the lesser of (i) such amount that equals ten percent (10%) of the daily trading volume of our common stock on the Put Date, and (ii) Two Hundred Thousand Dollars (\$200,000.00). The purchase price (the “Option 2 Purchase Price”) will be equal to the lesser of (i) 91% of the one (1) lowest traded price of our common stock on Nasdaq during the ten (10) consecutive trading days immediately preceding the trading day associated with the applicable Put Notice during which the Option 2 Purchase Price of our common stock is valued, or (ii) 93% of the volume weighted average price on the Clearing Date, or (iii) 93% of the closing bid price of our common stock on Nasdaq on the Clearing Date.

In connection with the Equity Purchase Agreement, on October 24, 2019, we also entered into Registration Rights Agreement (the “Registration Rights Agreement,” and together with the Equity Purchase Agreement, are referred to herein as the “Transaction Documents”) with Oasis Capital requiring us to prepare and file a registration statement on Form S-1 (the “Initial Registration Statement”) registering the resale by Oasis Capital of the Registrable Securities by October 29, 2019. The Company is obligated to use its reasonable best efforts to have the Initial Registration Statement and any amendment thereto declared effective by the SEC at the earliest possible date. In the event the number of shares available under the Initial Registration Statement is insufficient to cover all of the Registrable Securities, the Company must amend the Initial Registration Statement or file a new registration statement (collectively, “Registration Statements”), so as to cover all of the Registrable Securities as soon as practicable, but in any event not later than ten (10) business days after the necessity therefor arises, subject to any limits that may be imposed by the SEC pursuant to Rule 415 under the Securities Act of 1933, as amended. As explained above, the effectiveness of the Initial Registration Statement is a condition precedent to our ability to sell Put Shares to Oasis Capital under the Equity Purchase Agreement. We do not have the obligation to sell any Put Shares to Oasis Capital.

The Company is obligated to use reasonable best efforts to keep all Registration Statements effective, including but not limited to pursuant to Rule 415 promulgated under the Securities Act and available for the resale by Oasis Capital of all of the Registrable Securities covered thereby at all times until the earlier of (i) the date as of which Oasis Capital may sell all of the Registrable Securities without restriction pursuant to Rule 144 promulgated under the Securities Act without any restrictions (including any restrictions under Rule 144(c) or Rule 144(i)) and (ii) the date on which Oasis Capital shall have sold all the Registrable Securities covered thereby and no Put Shares remain issuable under the Equity Purchase Agreement.

The 1,139,423 shares being offered pursuant to this prospectus by Oasis Capital represent one third of the shares of our common stock issued and outstanding held by non-affiliates of our Company as of October 28, 2019. These shares include (i) the 104,652 Commitment Shares and (ii) 1,034,771 shares that may be sold as Put Shares to Oasis Capital.

The Transaction Documents contain covenants, representations and warranties of our Company and Oasis Capital that are typical for transactions of this type. Oasis Capital also agreed that neither it nor any affiliate acting on Oasis Capital’s behalf or pursuant to any understanding with Oasis Capital, will execute any short sales during the three-year term of the Equity Purchase Agreement.

In addition, we and Oasis Capital have granted each other customary indemnification rights in connection with the Equity Purchase Agreement.

We intend to sell Oasis Capital periodically shares of our common stock under the Equity Purchase Agreement and Oasis Capital may, in turn, sell such shares to investors in the market at the market price or at negotiated prices. This may cause our stock price to decline, which will require us to issue increasing numbers of common shares to Oasis Capital to raise the intended amount of funds, as our stock price declines.

Likelihood of Accessing the Full Amount of the Equity Line

Notwithstanding that the Equity Line is in an amount of \$15,000,000, we anticipate that the actual likelihood that we will be able to access the full amount of the Equity Line is low due to several factors, including that our ability to access the Equity Line is impacted by our average daily trading volume, which may limit the maximum dollar amount of each put we deliver to Oasis Capital, and our stock price. Our use of the Equity Line will continue to be limited and restricted if our share trading volume or and market price of our stock continue at their current levels or decrease further in the future from the volume and stock prices reported over the past year. Further, if the price of our stock remains at \$4.02 per share (which represents the last reported sale price of the shares of our common stock as reported on the Nasdaq Capital Market on October 28, 2019), the sale by Oasis Capital of all 1,034,771 of the Put Shares that are registered in this prospectus would mean we would receive only approximately \$4,159,779 from our sale of the shares under the Equity Line. Our ability to issue shares in excess of the 1,034,771 Put Shares covered by the registration statement of which this prospectus is a part will be subject to our filing a subsequent registration statement with the SEC and the SEC declaring it effective.

In addition, because our ability to deliver puts to Oasis Capital under the Equity Purchase Agreement is subject to a number of conditions, there is no guarantee that we will receive all or any portion of the \$15,000,000 that is available to us under the Equity Line.

SELLING STOCKHOLDER

This prospectus covers the resale by the selling stockholder or its permitted transferees of up to 1,139,423 shares that have been or may be issued by us to Oasis Capital under the Equity Purchase Agreement. Oasis Capital is an “underwriter” within the meaning of the Securities Act in connection with its resale of our common stock pursuant to this prospectus. The selling stockholder has not had any position or office, or other material relationship with us or any of our affiliates over the past three years. The following table sets forth certain information regarding the beneficial ownership of shares of common stock by the selling stockholder as of October 28, 2019 and the number of shares of our common stock being offered pursuant to this prospectus.

The table below (i) lists the selling stockholder and other information regarding the beneficial ownership (except with respect to the totals in Column 2, as determined under Section 13(d) of the Exchange Act and the rules and regulations thereunder) of our common stock by the selling stockholder; (ii) have been prepared based upon information furnished to us by the selling stockholder; and (iii) to our knowledge, is accurate as of the date of this prospectus. The selling stockholder may sell all, some or none of their shares in this offering. The selling stockholder identified in the table below may have sold, transferred or otherwise disposed of some or all of its shares since the date of this prospectus in transactions exempt from or not subject to the registration requirements of the Securities Act. Information concerning the selling stockholder may change from time to time and, if necessary, we will amend or supplement this prospectus accordingly and as required.

Name of selling stockholder	Shares beneficially owned as of the date of this prospectus(1)	Number of shares being offered	Number of shares to be beneficially owned and percentage of beneficial ownership after the offering(1)(2)	
			Number of shares	Percentage of class (3)
Oasis Capital, LLC(4)	113,510	1,139,423 ⁽⁵⁾	8,858	*

* Less than 1%.

- (1) Beneficial ownership is determined in accordance with SEC rules and generally includes voting or investment power with respect to shares of common stock. Shares of common stock subject to options and warrants currently exercisable, or exercisable within 60 days, are counted as outstanding for computing the percentage of the person holding such options or warrants but are not counted as outstanding for computing the percentage of any other person.
- (2) The amount and percentage of shares of our common stock that will be beneficially owned by the selling stockholder after completion of the offering assume that they will sell all shares of our common stock being offered pursuant to this prospectus.

- (3) Based on 3,887,957 shares of our common stock issued and outstanding as of October 28, 2019. All shares of our common stock being offered pursuant to this prospectus by the selling stockholder are counted as outstanding for computing the percentage beneficial ownership of such selling stockholder.
- (4) Adam Long has sole voting and investment control over shares owned by Oasis Capital.
- (5) Represents one-third of the shares of our common stock held by non-affiliates of our Company as of October 28, 2019.

PLAN OF DISTRIBUTION

The selling stockholder or its permitted transferees may, from time to time, sell any or all of shares of our common stock covered hereby on the Nasdaq stock market, or any other stock exchange, market or trading facility on which the shares are traded or in private transactions. The selling stockholder may sell all or a portion of the shares being offered pursuant to this prospectus at fixed prices, at prevailing market prices at the time of sale, at varying prices or at negotiated prices. The selling stockholder may use any one or more of the following methods when selling securities:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- in transactions through broker-dealers that agree with the selling stockholder to sell a specified number of such securities at a stipulated price per security;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- a combination of any such methods of sale; or
- any other method permitted pursuant to applicable law.

The selling stockholder may also sell securities under Rule 144 under the Securities Act, if available, rather than under this prospectus.

Broker-dealers engaged by the selling stockholder may arrange for other brokers-dealers to participate in sales. Broker-dealers may receive commissions or discounts from the selling stockholder (or, if any broker-dealer acts as agent for the purchaser of securities, from the purchaser) in amounts to be negotiated, provided such amounts are in compliance with FINRA Rule 2121. Discounts, concessions, commissions and similar selling expenses, if any, that can be attributed to the sale of common stock will be paid by the selling stockholder and/or the purchasers.

Oasis Capital is an underwriter within the meaning of the Securities Act and any broker-dealers or agents that are involved in selling the shares may be deemed to be “underwriters” within the meaning of the Securities Act in connection with such sales. In such event, any commissions received by such broker-dealers or agents and any profit on the resale of the shares purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act. Because Oasis Capital is an underwriter within the meaning of the Securities Act, it will be subject to the prospectus delivery requirements of the Securities Act.

Under applicable rules and regulations under the Exchange Act, any person engaged in the distribution of the resale securities may not simultaneously engage in market making activities with respect to the common stock for the applicable restricted period, as defined in Regulation M, prior to the commencement of the distribution. In addition, the selling stockholder will be subject to applicable provisions of the Exchange Act and the rules and regulations thereunder, including Regulation M, which may limit the timing of purchases and sales of securities of the common stock by the selling stockholder or any other person. We will make copies of this prospectus available to the selling security holders and have informed them of the need to deliver a copy of this prospectus to each purchaser at or prior to the time of the sale.

Although Oasis Capital has agreed not to enter into any “short sales” of our common stock, sales after delivery of a put notice of a number of shares reasonably expected to be purchased under a put notice shall not be deemed a “short sale.” Accordingly, Oasis Capital may enter into arrangements it deems appropriate with respect to sales of shares of our common stock after it receives a put notice under the Equity Purchase Agreement so long as such sales or arrangements do not involve more than the number of put shares reasonably expected to be purchased by Oasis Capital under such put notice.

LEGAL MATTERS

The validity of any securities offered from time to time by this prospectus and any related prospectus supplement will be passed upon by Maslon LLP, Minneapolis, Minnesota. If legal matters in connection with offerings made pursuant to this prospectus and any related prospectus supplement are passed upon by counsel to underwriters, dealers or agents, if any, such counsel will be named in the prospectus supplement related to such offering.

EXPERTS

The consolidated financial statements for the fiscal year ended December 31, 2018 incorporated in this Prospectus by reference from the Company's Annual Report on Form 10-K for the year ended December 31, 2018, have been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their report, which is incorporated herein by reference (which report expresses an unqualified opinion on the consolidated financial statements and includes an explanatory paragraph relating to the substantial doubt about the Company's ability to continue as a going concern as described in Note 1 to the financial statements). Such consolidated financial statements have been so incorporated in reliance upon the report of such firm given upon their authority as experts in accounting and auditing.

Our financial statements for the fiscal year ended December 31, 2017 incorporated by reference in this prospectus have been so incorporated in reliance on the report of our former auditors, Olsen Thielen & Co., Ltd., certified public accountants registered with the Public Company Accounting Oversight Board. The financial statements of Helomics Holding Corporation for the fiscal years ended December 31, 2018 and 2017, as restated, incorporated by reference in this prospectus have been so incorporated in reliance on the report of Schneider Downs & Co., Inc., certified public accountants registered with the Public Company Accounting Oversight Board, as auditor for Helomics Holding Corporation prior to the acquisition by the Company

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. We have filed with the SEC a registration statement on Form S-1 under the Securities Act with respect to the securities we are offering under this prospectus. This prospectus does not contain all of the information set forth in the registration statement and the exhibits to the registration statement. For further information with respect to us and the securities we are offering under this prospectus, we refer you to the registration statement and the exhibits and schedules filed as a part of the registration statement. Reports filed with the SEC pursuant to the Exchange Act, including proxy statements, annual and quarterly reports, and other reports filed by the Company can be inspected and copied at the public reference facilities maintained by the SEC at the Headquarters Office, 100 F Street N.E., Room 1580, Washington, D.C. 20549. The reader may obtain information on the operation of the public reference room by calling the SEC at 1-800-SEC-0330. The reader can request copies of these documents upon payment of a duplicating fee by writing to the SEC. Our filings are also available on the SEC's internet site at <http://www.sec.gov> and the Company's website at www.precisiontherapeutics.com. Information on any Company website, any subsection, page, or other subdivision of any Company website, or any website linked to by content on any Company website, is not part of this prospectus and you should not rely on that information unless that information is also in this prospectus or incorporated by reference in this prospectus.

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The SEC allows us to "incorporate by reference" information into this prospectus, which means that we can disclose important information to you by referring you to another document filed separately with the SEC. The documents incorporated by reference into this prospectus contain important information that you should read about us. The following documents are incorporated by reference into this prospectus:

We are allowed to incorporate by reference information contained in documents that we file with the SEC. This means that we can disclose important information to you by referring you to those documents and that the information in this prospectus is not complete and you should read the information incorporated by reference for more detail. We incorporate by reference in two ways. First, we list certain documents that we have already filed with the SEC. The information in these documents is considered part of this prospectus. Second, the information in documents that we file in the future will update and supersede the current information in, and incorporated by reference in, this prospectus.

We incorporate by reference the documents listed below and any future filings we will make with the SEC under Section 13(a), 13(c), 14 or 15(d) of the Exchange Act (other than information furnished in Current Reports on Form 8-K filed under Item 2.02 or 7.01 of such form unless such form expressly provides to the contrary):

- Our Annual Report on Form 10-K for the fiscal year ended December 31, 2018 and Amendment to Form 10-K filed on April 2, 2019;
- Quarterly Reports on Form 10-Q for the quarters ended March 31, 2019 and June 30, 2019;
- Current Reports on Form 8-K filed October 28, 2019, October 24, 2019, October 10, 2019, September 30, 2019, September 26, 2019, September 26, 2019 (amendment), August 19, 2019, July 11, 2019, June 19, 2019, June 18, 2019 (amendment), June 13, 2019, June 4, 2019, May 23, 2019, May 17, 2019, May 15, 2019, May 8, 2019, April 10, 2019, April 2, 2019, April 1, 2019, March 22, 2019, March 14, 2019, March 8, 2019, March 5, 2019, March 1, 2019, February 26, 2019, February 19, 2019, February 12, 2019, February 7, 2019, January 28, 2019 (amendment), January 25, 2019, January 22, 2019, January 18, 2019, January 17, 2019, January 14, 2019 and January 3, 2019.
- The description of the Company's common stock under the caption "Description of Predictive Capital Stock – Common Stock" in the Company's Amendment No. 2 to Registration Statement on Form S-4 as filed with the SEC on January 24, 2019.

We will provide to each person, including any beneficial owner, to whom a prospectus is delivered, a copy of any or all of the information that has been incorporated by reference in this prospectus but not delivered with this prospectus. You may request a copy of this information at no cost, by writing or telephoning us at the following address or telephone number:

Predictive Oncology Inc.
Attention: Corporate Secretary
2915 Commers Drive, Suite 900
Eagan, Minnesota 55121
(651) 389-4800

PREDICTIVE ONCOLOGY INC.

[_____] Shares

Common Stock

PROSPECTUS

_____, 2019

PART II
INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other Expenses Of Issuance And Distribution.

The following table sets forth the costs and expenses, payable by the registrant in connection with the sale of common stock being registered. All amounts are estimates except the SEC registration fee and the Nasdaq listing fee.

Securities and Exchange Commission registration fee	\$ 621.00
NASDAQ listing fee	\$ 10,000.00
Printing and engraving expenses	\$ 5,000.00
Legal fees and expenses	\$ 25,000.00
Accounting fees and expenses	\$ 10,000.00
Miscellaneous	\$ 19,379.00
Total	\$ 70,000.00

Item 15. Indemnification of Directors and Officers.

We are a Delaware corporation and certain provisions of the Delaware Statutes and our bylaws provide for indemnification of our officers and directors against liabilities that they may incur in such capacities. A summary of the circumstances in which indemnification is provided is discussed below, but this description is qualified in its entirety by reference to our bylaws and to the statutory provisions.

Section 145 of the Delaware General Corporation Law provides for, under certain circumstances, the indemnification of our officers, directors, employees and agents against liabilities that they may incur in such capacities. A summary of the circumstances in which such indemnification provided for is contained herein, but that description is qualified in its entirety by reference to the relevant Section of the Delaware General Corporation Law.

In general, the statute provides that any director, officer, employee or agent of a corporation may be indemnified against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement, actually and reasonably incurred in a proceeding (including any civil, criminal, administrative or investigative proceeding) to which the individual was a party by reason of such status. Such indemnity may be provided if the indemnified person's actions resulting in the liabilities: (i) were taken in good faith; (ii) were reasonably believed to have been in or not opposed to our best interest; and (iii) with respect to any criminal action, such person had no reasonable cause to believe the actions were unlawful. Unless ordered by a court, indemnification generally may be awarded only after a determination of independent members of the Board of Directors or a committee thereof, by independent legal counsel or by vote of the stockholders that the applicable standard of conduct was met by the individual to be indemnified.

The statutory provisions further provide that to the extent a director, officer, employee or agent is wholly successful on the merits or otherwise in defense of any proceeding to which he was a party, he is entitled to receive indemnification against expenses, including attorneys' fees, actually and reasonably incurred in connection with the proceeding.

Indemnification in connection with a proceeding by or in the right of the Company in which the director, officer, employee or agent is successful is permitted only with respect to expenses, including attorneys' fees actually and reasonably incurred in connection with the defense. In such actions, the person to be indemnified must have acted in good faith, in a manner believed to have been in our best interest and must not have been adjudged liable to us unless and only to the extent that the Court of Chancery or the court in which such action or suit was brought shall determine upon application that, despite the adjudication of liability, in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expense which the Court of Chancery or such other court shall deem proper. Indemnification is otherwise prohibited in connection with a proceeding brought on behalf of the Company in which a director is adjudged liable to us, or in connection with any proceeding charging improper personal benefit to the director in which the director is adjudged liable for receipt of an improper personal benefit.

Delaware law authorizes us to reimburse or pay reasonable expenses incurred by a director, officer, employee or agent in connection with a proceeding in advance of a final disposition of the matter. Such advances of expenses are permitted if the person furnishes to us a written agreement to repay such advances if it is determined that he is not entitled to be indemnified by us.

The statutory section cited above further specifies that any provisions for indemnification of or advances for expenses does not exclude other rights under our certificate of incorporation, corporate bylaws, resolutions of our stockholders or disinterested directors, or otherwise. These indemnification provisions continue for a person who has ceased to be a director, officer, employee or agent of the corporation and inure to the benefit of the heirs, executors and administrators of such persons.

The statutory provision cited above also grants the power to the Company to purchase and maintain insurance policies that protect any director, officer, employee or agent against any liability asserted against or incurred by him in such capacity arising out of his status as such. Such policies may provide for indemnification whether or not the corporation would otherwise have the power to provide for it.

Article 8 of our certificate of incorporation provides that we shall indemnify our directors and officers to the fullest extent permitted by the Delaware General Corporation Law.

We have purchased directors' and officers' liability insurance in order to limit the exposure to liability for indemnification of directors and officers, including liabilities under the Securities Act of 1933.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted for our directors, officers, and controlling persons pursuant to the foregoing provisions or otherwise, we have been advised that in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable.

Item 16. Exhibits.

(a) Exhibits

See "Exhibit Index" below, which follows the signature pages to this registration statement.

Item 17. Undertakings.

The undersigned registrant hereby undertakes:

- (a) (1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:
- (i) to include any prospectus required by section 10(a)(3) of the Securities Act of 1933;
 - (ii) to reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, an increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement;

- (iii) to include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement.
- (2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.
- (4) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser:
 - (i) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and
 - (ii) Each prospectus required to be filed pursuant to Rule 424(b)(2), 424(b)(5), or 424(b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), 415(a)(1)(vii), or 415(a)(1)(x) for the purpose of providing the information required by Section 10(a) of the Securities Act shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date.
- (5) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities: The undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:
 - (i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;
 - (ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;

- (iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and
 - (iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.
- (b) The undersigned registrant hereby further undertakes that, for the purposes of determining any liability under the Securities Act, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in this registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (c) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (d) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question of whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.
- (e) For purposes of determining any liability under the Securities Act, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.
- (f) For the purpose of determining any liability under the Securities Act, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (g) If and when applicable, the Registrant hereby further undertakes to file an application for the purpose of determining the eligibility of the trustee to act under subsection (a) of Section 310 of the Trust Indenture Act in accordance with the rules and regulations prescribed by the Securities and Exchange Commission under Section 305(b)(2) of the Trust Indenture Act.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized in the City of Eagan, State of Minnesota, on October 29, 2019.

PREDICTIVE ONCOLOGY INC.

/s/ Bob Myers
Bob Myers
Chief Financial Officer

Each person whose signature appears below hereby constitutes and appoints Carl Schwartz and Bob Myers, and each of them, as his true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution, for him and in his name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this registration statement, and any and all additional registration statements pursuant to Rule 462(b) of the Securities Act of 1933, as amended, 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, 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 to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent or his substitutes or substitute, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed below by the following persons in the capacities and on the dates indicated:

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Carl Schwartz</u> Carl Schwartz	Chief Executive Officer (principal executive officer) and Director	October 29, 2019
<u>/s/ Bob Myers</u> Bob Myers	Chief Financial Officer (principal financial and accounting officer)	October 29, 2019
<u>/s/ J. Melville Engle</u> J. Melville Engle	Director	October 29, 2019
<u>/s/ Richard L. Gabriel</u> Richard L. Gabriel	Director	October 29, 2019
<u>/s/ Timothy A. Krochuk</u> Timothy A. Krochuk	Director	October 29, 2019
<u>/s/ Thomas J. McGoldrick</u> Thomas J. McGoldrick	Director	October 29, 2019
<u>/s/ Andrew P. Reding</u> Andrew P. Reding	Director	October 29, 2019
<u>/s/ Gerald Vardzel</u> Gerald Vardzel	Director	October 29, 2019

EXHIBIT INDEX

Exhibit Number	Description
1.1	Placement Agency Agreement dated February 27, 2019 (47) Exhibit 1.1
1.2	Placement Agency Agreement with Dawson James Securities, Inc. and Paulson Investment Company, LLC dated October 1, 2019 (61) Exhibit 1.2
2.1	Agreement and Plan of Merger, dated December 16, 2013, between Skyline Medical Inc., a Minnesota corporation, and the registrant (1) Exhibit 2.1
2.2	Amended and Restated Agreement and Plan of Merger dated October 22, 2018 by and among registrant, Helomics Acquisition, Inc., Helomics Holding Corporation and Gerald Vardzel, Jr. as Shareholder Representative (38) Exhibit 2.2
3.1	Certificate of Incorporation (1) Exhibit 3.1
3.2	Certificate of Amendment to Certificate of Incorporation to effect reverse stock split and reduction in authorized share capital filed with the Delaware Secretary of State on October 20, 2014 (4) Exhibit 3.2
3.3	Certificate of Amendment to Certificate of Incorporation regarding increase in share capital, filed with the Delaware Secretary of State on July 24, 2015 (5) Exhibit 3.3
3.4	Certificate of Amendment to Certificate of Incorporation to increase authorized share capital, filed with the Delaware Secretary of State on September 16, 2016 (6) Exhibit 3.4
3.5	Certificate of Amendment to Certificate of Incorporation to effect reverse stock split and reduction in authorized share capital, fled with the Delaware Secretary of State on October 26, 2016 (7) Exhibit 3.5
3.6	Certificate of Amendment to Certificate of Incorporation regarding increase in share capital, filed with the Delaware Secretary of State on January 26, 2017 (8) Exhibit 3.6
3.7	Certificate of Amendment to Certificate of Incorporation to effect reverse stock split, filed with the Delaware Secretary of State on January 2, 2018 (9) Exhibit 3.7
3.8	Certificate of Amendment to Certificate of Incorporation to effect name change, filed with the Delaware Secretary of State on February 1, 2018 (10) Exhibit 3.8
3.9	Certificate of Amendment to Certificate of Incorporation to increase authorized share capital and establish a classified Board of Directors (45) Exhibit 3.9
3.10	Second Amended and Restated Bylaws (57) Exhibit 3.10
3.11	Form of Certificate of Designation of Preferences, Rights and Limitations of Series B Convertible Preferred Stock (11) Exhibit 3.10
3.12	Certificate of Designation of Preferences, Rights and Limitations of Series C Convertible Preferred Stock (12) Exhibit 3.11

- 3.13 Certificate of Designation of Preferences, Rights and Limitations of Series E Convertible Preferred Stock (58) [Exhibit 3.13](#)
 - 3.14 Certificate of Amendment to Certificate of Incorporation to effect name change to Predictive Oncology, filed with the Delaware Secretary of State on June 10, 2019 (57) [Exhibit 3.14](#)
 - 3.15 Certificate of Amendment to Certificate of Incorporation to effect reverse stock split, filed with the Delaware Secretary of State on October 25, 2019 (52) [Exhibit 3.15](#)
 - 4.1 Form of Warrant (7) [Exhibit 4.1](#)
 - 4.2 Form of Warrant (11) [Exhibit 4.2](#)
 - 4.3 Form of Warrant (15) [Exhibit 4.4](#)
 - 4.4 Form of Warrant (16) [Exhibit 4.5](#)
 - 4.5 Amended and Restated 2012 Stock Incentive Plan (3)** [Exhibit 4.6](#)
 - 4.6 Form of Senior Convertible Note (23) [Exhibit 4.7](#)
 - 4.7 Form of Warrant issued to investors of Convertible Notes (23) [Exhibit 4.8](#)
 - 4.8 Form of Registration Rights Agreement (23) [Exhibit 4.9](#)
 - 4.10 Form Waiver and Consent of, and Notice to, Holder of Preferred Stock of the registrant (23) [Exhibit 4.10](#)
 - 4.11 Form of Series A Warrant Agency Agreement by and between Skyline Medical Inc. and Corporate Stock Transfer, Inc. and Form of Warrant Certificate (24) [Exhibit 4.11](#)
 - 4.12 Form of Series A Warrant Certificate (included as part of Exhibit 4.11) (24) [Exhibit 4.12](#)
 - 4.13 Form of unit Purchase Option issued in connection with offering of Units (25) [Exhibit 4.13](#)
 - 4.14 Form of Exchange Agreement with holders of Series A Preferred Stock (26) [Exhibit 4.14](#)
 - 4.15 Form of Amendment to Senior Convertible Notes and Agreement by and between Skyline Medical Inc. and Senior Convertible Notes (26) [Exhibit 4.15](#)
 - 4.16 Form of specimen certificate evidencing shares of Series B Convertible Preferred Stock (25) [Exhibit 4.16](#)
 - 4.17 Form of Unit Agreement (including form of Unit Certificate) (24) [Exhibit 4.17](#)
 - 4.18 Form of New Warrant Agency Agreement by and between Skyline Medical Inc. and Form of Warrant Certificate for Series B Warrant (30) [Exhibit 4.18](#)
 - 4.19 Form of Series B Warrant Certificate (included as part of Exhibit 4.18) [Exhibit 4.19](#)
 - 4.20 Form of Series C Warrant (33) [Exhibit 4.20](#)
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- 4.21 Form of Unit Purchase Option (33) [Exhibit 4.21](#)
- 4.22 Form of Series D Warrant Agency Agreement by and between Skyline Medical Inc. and Corporate Stock Transfer, Inc. and Form of Series D Warrant Certificate (34) [Exhibit 4.22](#)
- 4.23 Form of Series D Warrant Certificate (included as part of Exhibit 4.22) [Exhibit 4.23](#)
- 4.24 Form of Amendment to Warrant (21) [Exhibit 4.24](#)
- 4.25 Form of Common Stock Purchase Warrant dated March 1, 2019 (47) [Exhibit 4.25](#)
- 4.26 Form of Unit Purchase Option (47) [Exhibit 4.26](#)
- 4.25 Investor Warrant (40) [Exhibit 4.25](#)
- 4.26 Series E Warrant Agency Agreement by and between Skyline Medical Inc. and Corporate Stock Transfer, Inc. dated January 9, 2018 (42) [Exhibit 4.26](#)
- 4.27 Form of Series E Warrant Certificate (42) [Exhibit 4.27](#)
- 4.28 Common Stock Purchase Warrant issued to L2 Capital, LLC dated September 28, 2018 (44) [Exhibit 4.28](#)
- 4.29 Common Stock Purchase Warrant issued to Peak One Opportunity Fund, LP dated September 28, 2018 (44) [Exhibit 4.29](#)
- 4.30 Second Amended and Restated Common Stock Purchase Warrant issued to Carl Schwartz dated February 6, 2019 (46) [Exhibit 4.30](#)
- 4.31 Form of Warrant (47) [Exhibit 4.31](#)
- 4.32 Form of Unit Purchase Option (47) [Exhibit 4.32](#)
- 4.33 Common Stock Purchase Warrant issued to Carl Schwartz dated November 30, 2018 (48) [Exhibit 4.33](#)
- 4.34 Amended and Restated Common Stock Purchase Warrant issued to Carl Schwartz dated January 8, 2019 (49) [Exhibit 4.34](#)
- 4.35 Third Amended and Restated Common Stock Purchase Warrant dated May 21, 2019 issued to Carl Schwartz (55) [Exhibit 4.35](#)
- 4.36 Common Stock Purchase Warrant issued to Oasis Capital, LLC dated September 27, 2019 (60) [Exhibit 4.36](#)
- 4.37 Form of Common Stock Purchase Warrant dated October 1, 2019 (61) [Exhibit 4.37](#)
- [5.1](#) Opinion of Maslon LLP
- 10.1 Form of Securities Purchase Agreement, dated as of February 4, 2014, by and among the Company and certain Purchasers (2) [Exhibit 10.1](#)
- 10.2 Settlement Agreement and Mutual General Release dated September 18, 2013, entered into by and among Kevin Davidson, Skyline Medical Inc., Atlantic Partners Alliance, LLC, SOK Partners, LLC, Joshua Kornberg and Dr. Samuel Herschkowitz (4) [Exhibit 10.2](#)
- 10.3 Amended and Restated Executive Employment Agreement with Joshua Kornberg, signed on June 17, 2013 and effective March 14, 2013 (6)** [Exhibit 10.3](#)
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- 10.4 BioDrain Medical, Inc., 2012 Stock Incentive Plan Restricted Stock Award Agreement with Joshua Kornberg, signed on June 17, 2013 and effective March 14, 2013 (6)** [Exhibit 10.4](#)
- 10.5 Form of Convertible Promissory Note (7) [Exhibit 10.5](#)
- 10.6 Promissory Note in the Principal amount of \$100,000 in favor of Brookline Group, LLC, dated as of March 8, 2013 (9) [Exhibit 10.6](#)
- 10.7 Form of Securities Purchase Agreement (11) [Exhibit 10.7](#)
- 10.8 Office Lease Agreement between the registrant and Roseville Properties Management Company, as agent for Lexington Business Park, LLC (12) [Exhibit 10.8](#)
- 10.9 Form of Non-Qualified Stock Option Agreement under the 2012 Stock Incentive Plan (13)** [Exhibit 10.9](#)
- 10.10 Employment Agreement with Josh Kornberg dated July 24, 2012 (13)** [Exhibit 10.10](#)
- 10.11 Non-Qualified Stock Option Agreement with Josh Kornberg dated August 13, 2012 (13)** [Exhibit 10.11](#)
- 10.12 Employment Agreement with Robert Myers dated August 11, 2012 (13)** [Exhibit 10.12](#)
- 10.13 Employment Agreement with David Johnson dated August 11, 2012 (13)** [Exhibit 10.13](#)
- 10.14 Settlement Agreement and Mutual General Release with Kevin Davidson effective October 11, 2012 (13)** [Exhibit 10.14](#)
- 10.15 Note Purchase Agreement, dated as of November 6, 2012, between Dr. Samuel Herschkowitz and BioDrain Medical, Inc. (14) [Exhibit 10.15](#)
- 10.16 Note Purchase Agreement, dated as of November 6, 2012, between Dr. Samuel Herschkowitz and BioDrain Medical, Inc. (14) [Exhibit 10.16](#)
- 10.17 Note Purchase Agreement, dated as of November 6, 2012, between Dr. Samuel Herschkowitz and BioDrain Medical, Inc. (14) [Exhibit 10.17](#)
- 10.18 Note Purchase Agreement, dated as of November 6, 2012, between Dr. Samuel Herschkowitz and BioDrain Medical, Inc. (14) [Exhibit 10.18](#)
- 10.19 Amended Lease with Roseville Properties Management Company, Inc. dated January 29, 2013 (14) [Exhibit 10.19](#)
- 10.20 Form of Convertible Promissory Note (15) [Exhibit 10.20](#)
- 10.21 Forbearance and Settlement Agreement among the registrant, Dr. Samuel Herschkowitz and SOK Partners, LLC dated August 15, 2012 (13) [Exhibit 10.21](#)
- 10.22 Form of Securities Purchase Agreement (16) [Exhibit 10.22](#)
- 10.23 Convertible Note Purchase Agreement between the Company and SOK Partners, LLC dated March 28, 2012, including the form of Convertible Promissory Grid Note (18) [Exhibit 10.23](#)
- 10.24 Amended and Restated Note Purchase Agreement between the Company and Dr. Samuel Herschkowitz dated as of December 20, 2011, including the form of Convertible Promissory Note (issued in the amount of \$240,000) (18) [Exhibit 10.24](#)
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- 10.25 Letter Agreement, dated August 22, 2013, among Dr. Samuel Herschkowitz, SOK Partners, LLC and Skyline Medical Inc. (5) [Exhibit 10.25](#)
- 10.26 Letter Agreement, dated April 25, 2013, among Dr. Samuel Herschkowitz, SOK Partners, LLC and BioDrain Medical, Inc. (8) [Exhibit 10.26](#)
- 10.27 Letter Agreement, dated March 14, 2013, among Dr. Samuel Herschkowitz, SOK Partners, LLC and BioDrain Medical, Inc. (10) [Exhibit 10.27](#)
- 10.28 Form of Securities Purchase Agreement with investors in Convertible Notes (23) [Exhibit 10.28](#)
- 10.29 Separation Agreement and Release between Skyline Medical Inc. and Joshua Kornberg, dated June 13, 2016 (31) [Exhibit 10.29](#)
- 10.30 Amended and Restated 2012 Stock Incentive Plan (45) [Exhibit 10.30](#)
- 10.31 Form of Common Stock Purchase Agreement (33) [Exhibit 10.31](#)
- 10.32 Form of Stock Option Agreement effective as of July 1, 2016 (36) [Exhibit 10.32](#)
- 10.33 Form of Stock Option Agreement for Executive Officers (39) [Exhibit 10.33](#)
- 10.34 Form of Stock Option Agreement for Directors (39) [Exhibit 10.34](#)
- 10.35 Securities Purchase Agreement dated November 28, 2017 (40) [Exhibit 10.35](#)
- 10.36 Registration Rights Agreement dated November 28, 2017 (40) [Exhibit 10.36](#)
- 10.37 Share Exchange Agreement between Skyline Medical Inc. and Helomics Holding Corporation, dated January 11, 2018, including the form of Certificate of Designation of Helomics Series A Preferred Stock and the form of Escrow Agreement (43) [Exhibit 10.37](#)
- 10.38 Securities Purchase Agreement by and between the Company and L2 Capital, LLC dated September 28, 2018 (44) [Exhibit 10.38](#)
- 10.39 Senior Secured Promissory Note issued to L2 Capital, LLC dated September 28, 2018 (44) [Exhibit 10.39](#)
- 10.40 Registration Rights Agreement by and between the Company and L2 Capital, LLC dated September 28, 2018 (44) [Exhibit 10.40](#)
- 10.41 Security Agreement by and between the Company and L2 Capital, LLC dated September 28, 2018 (44) [Exhibit 10.41](#)
- 10.42 Securities Purchase Agreement by and between the Company and Peak One Opportunity Fund, LP dated September 28, 2018 (44) [Exhibit 10.42](#)
- 10.43 Senior Secured Promissory Note issued to Peak One Opportunity Fund, LP dated September 28, 2018 (44) [Exhibit 10.43](#)
- 10.44 Registration Rights Agreement by and between the Company and Peak One Opportunity Fund, LP dated September 28, 2018 (44) [Exhibit 10.44](#)
- 10.45 Security Agreement by and between the Company and Peak One Opportunity Fund, LP dated September 28, 2018 (44) [Exhibit 10.45](#)
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- 10.46 Amended and Restated Promissory Note issued to Carl Schwartz dated February 6, 2019 (46) [Exhibit 10.46](#)
- 10.47 Forbearance Agreement by and between L2 Capital, LLC and the Company dated February 7, 2019 (46) [Exhibit 10.47](#)
- 10.48 Forbearance Agreement by and between Peak One Opportunity Fund, LP and the Company dated February 7, 2019 (46) [Exhibit 10.48](#)
- 10.49 Amended and Restated Promissory Note issued to L2 Capital, LLC dated February 7, 2019 (46) [Exhibit 10.49](#)
- 10.50 Amended and Restated Promissory Note issued to Peak One Opportunity Fund, LP dated February 7, 2019 (46) [Exhibit 10.50](#)
- 10.51 Promissory Note issued to Carl Schwartz dated November 30, 2018 (48) [Exhibit 10.51](#)
- 10.52 Amended and Restated Promissory Note issued to Carl Schwartz dated January 8, 2019 (49) [Exhibit 10.52](#)
- 10.53 Subscription Agreement by and between Carl Schwartz and the Company dated January 8, 2019 (49) [Exhibit 10.53](#)
- 10.54 Employment Agreement by and between Carl Schwartz and Issuer dated November 10, 2017 (50)** [Exhibit 10.54](#)
- 10.55 Amendment to Employment Agreement by and between the Issuer and Carl Schwartz dated August 20, 2018 (50)** [Exhibit 10.55](#)
- 10.56 Amendment to Employment Agreement by and between the Issuer and Bob Myers dated August 20, 2018** (51) [Exhibit 10.56](#)
- 10.57 Consulting Agreement by and between registrant and Richard Gabriel dated May 1, 2019 (53) [Exhibit 10.57](#)
- 10.58 Promissory Note Issued to Carl Schwartz dated May 30, 2019 (56) [Exhibit 10.58](#)
- 10.59 Form of Securities Purchase Agreement for purchase of Series E. Convertible Preferred Stock (59) [Exhibit 10.59](#)
- 10.60 Securities Purchase Agreement by and between registrant and Oasis Capital, LLC dated September 27, 2019 (60) [Exhibit 10.60](#)
- 10.61 Senior Secured Promissory Notes issued to Oasis Capital, LLC dated September 27, 2019 (60) [Exhibit 10.61](#)
- 10.62 Security Agreement by and between registrant and Oasis Capital, LLC dated September 27, 2019 (60) [Exhibit 10.62](#)
- 10.63 Amendment #1 to the Amended and restated Senior Secured Promissory Note Originally Issued on September 28, 2018 by and between registrant and L2 Capital, LLC, dated September 27, 2019 (60) [Exhibit 10.63](#)
- 10.64 Equity Purchase Agreement by and between the Company and Oasis Capital, LLC dated October 24, 2019 (54) [Exhibit 10.64](#)
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10.65	Registration Rights Agreement by and between the Company and Oasis Capital, LLC dated October 24, 2019 (54) Exhibit 10.65
23.1*	Consent of Deloitte & Touche LLP
23.2*	Consent of Olsen Thielen & Co., Ltd.
23.3*	Consent of Schneider Downs & Co., Inc.
23.4*	Consent of Maslon LLP (included as part of Exhibit 5.1)
24.1*	Power of Attorney (included on signature page hereto)
99.1	Binding Letter of Intent with CytoBioscience, Inc. dated July 21, 2017 (37) Exhibit 99.1

* Filed herewith

** To be filed by an amendment or as an exhibit to a document filed under the Securities Exchange Act of 1934, as amended, and incorporated by reference herein by amendment.

- (1) Filed on December 19, 2013 as an exhibit to our Current Report on Form 8-K and incorporated herein by reference.
 - (2) Filed on February 5, 2014 as an exhibit to our Current Report on Form 8-K and incorporated herein by reference.
 - (3) Filed on August 27, 2013 as an exhibit to our Proxy Statement on Schedule 14A and incorporated herein by reference.
 - (4) Filed on November 14, 2013 as an exhibit to our Quarterly Report on Form 10-Q and incorporated herein by reference.
 - (5) Filed on August 28, 2013 as an exhibit to our Current Report on Form 8-K and incorporated herein by reference.
 - (6) Filed on June 18, 2013 as an exhibit to our Current Report on Form 8-K and incorporated herein by reference.
 - (7) Filed on June 12, 2013 as an exhibit to our Current Report on Form 8-K and incorporated herein by reference.
 - (8) Filed on May 1, 2013 as an exhibit to our Current Report on Form 8-K and incorporated herein by reference.
 - (9) Filed on March 14, 2013 as an exhibit to our Current report on Form 8-K and incorporated herein by reference.
 - (10) Filed on March 12, 2013 as an exhibit to our Current Report on Form 8-K (by incorporation by reference from the Schedule 13D/A filed by Dr. Herschkowitz and other parties on March 8, 2013) and incorporated herein by reference.
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- (11) Filed on February 26, 2013 as an exhibit to our Current Report on Form 8-K and incorporated herein by reference.
 - (12) Filed on November 12, 2008 as an exhibit to our Registration Statement on Form S-1 and incorporated herein by reference.
 - (13) Filed on November 5, 2012 as an exhibit to our Registration Statement on Form S-1 and incorporated herein by reference.
 - (14) Filed on February 8, 2013 as an exhibit to our Registration Statement on Form S-1 (except for Exhibit 10.19, by incorporation by reference from the Schedule 13D/A filed by Dr. Herschkowitz and other parties on November 8, 2012) and incorporated herein by reference.
 - (15) Filed on January 15, 2013 as an exhibit to our Current Report on Form 8-K and incorporated herein by reference.
 - (16) Filed on June 21, 2012 as an exhibit to our Current Report on Form 8-K and incorporated herein by reference.
 - (17) Filed on April 16, 2012 as an exhibit to our Annual Report on Form 10-K and incorporated herein by reference.
 - (18) Filed on April 3, 2012 as an exhibit to our Current Report on Form 8-K and incorporated herein by reference.
 - (19) Filed on October 24, 2014 as an exhibit to our Current Report on Form 8-K and incorporated herein by reference.
 - (20) Filed on June 30, 2015 as an appendix to our Information Statement on Schedule 14C and incorporated herein by reference.
 - (21) Filed on February 6, 2018 as an exhibit to our Current Report on Form 8-K and incorporated herein by reference.
 - (22) Filed on August 20, 2015 as an exhibit to our Registration Statement on Form S-1 (File No. 333-198962) and incorporated herein by reference.
 - (23) Filed on July 24, 2014 as an exhibit to our Current Report on Form 8-K and incorporated herein by reference.
 - (24) Filed on August 20, 2015 as an exhibit to our Registration Statement on Form S-1 (File No. 333-198962) and incorporated herein by reference.
 - (25) Filed on August 10, 2015 as an exhibit to our Registration Statement on Form S-1 (File No. 333-198962) and incorporated herein by reference.
 - (26) Filed on July 24, 2015 as an exhibit to our Current Report on Form 8-K and incorporated herein by reference.
 - (27) Filed on September 16, 2016 as an exhibit to our Current Report on Form 8-K and incorporated herein by reference.
 - (28) Filed on October 27, 2016 as an exhibit to our Current Report on Form 8-K and incorporated herein by reference.
 - (29) Filed on January 27, 2017 as an exhibit to our Current Report on Form 8-K and incorporated herein by reference.
 - (30) Filed on March 25, 2016 as an exhibit to our Registration Statement on Form S-4 (File No. 333-210398) and incorporated herein by reference.
 - (31) Filed on June 17, 2016 as an exhibit to our Current Report on Form 8-K and incorporated herein by reference.
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- (32) Filed on December 4, 2017 as an exhibit to our Proxy Statement on Schedule 14A and incorporated herein by reference.
 - (33) Filed on November 30, 2016 as an exhibit to our Current Report on Form 8-K and incorporated herein by reference.
 - (34) Filed on January 10, 2017 as an exhibit to our Registration Statement on Form S-1 (File No. 333-215005) and incorporated herein by reference.
 - (35) [Reserved]
 - (36) Filed on March 15, 2017 as an exhibit to our Registration Statement on Form S-8 and incorporated herein by reference.
 - (37) Filed on August 2, 2017 as an exhibit to our Current Report on Form 8-K and incorporated herein by reference.
 - (38) Filed on October 30, 2018 as an exhibit to our Current Report on Form 8-K and incorporated herein by reference.
 - (39) Filed on August 14, 2017 as an exhibit to our Quarterly Report on Form 10-Q and incorporated herein by reference.
 - (40) Filed on November 29, 2017 as an exhibit to our Current Report on Form 8-K and incorporated herein by reference.
 - (41) Filed on January 2, 2018 as an exhibit to our Current Report on Form 8-K and incorporated herein by reference.
 - (42) Filed on January 10, 2018 as an exhibit to our Current Report on Form 8-K and incorporated herein by reference.
 - (43) Filed on January 16, 2018 as an exhibit to our Current Report on Form 8-K and incorporated herein by reference.
 - (44) Filed on October 4, 2018 as an exhibit to our Current Report on Form 8-K and incorporated herein by reference.
 - (45) Filed on March 22, 2019 as an exhibit to our Current Report on Form 8-K and incorporated herein by reference.
 - (46) Filed on February 12, 2019 as an exhibit to our Current Report on Form 8-K and incorporated herein by reference.
 - (47) Filed on March 1, 2019 as an exhibit to our Current Report on Form 8-K and incorporated herein by reference.
 - (48) Filed on December 7, 2018 as an exhibit to our Current Report on Form 8-K and incorporated herein by reference.
 - (49) Filed on January 14, 2019 as an exhibit to our Current Report on Form 8-K and incorporated herein by reference.
 - (50) Filed on January 25, 2019 as an exhibit to the Schedule 13D report filed by Carl Schwartz and incorporated herein by reference.
 - (51) Filed on April 1, 2019 as an exhibit to our Annual Report on Form 10-K and incorporated herein by reference.
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- (52) Filed on October 28, 2019 as an exhibit to our Current Report on Form 8-K and incorporated herein by reference.
- (53) Filed on May 8, 2019 as an exhibit to our Current Report on Form 8-K and incorporated hereby by reference.
- (54) Filed on October 25, 2019 as an exhibit to our Current Report on Form 8-K and incorporated herein by reference.
- (55) Filed on May 23, 2019 as an exhibit to our Current Report on Form 8-K and incorporated herein by reference.
- (56) Filed on June 4, 2019 as an exhibit to our Current Report on Form 8-K and incorporated herein by reference.
- (57) Filed on June 13, 2019 as an exhibit to our Current Report on Form 8-K and incorporated herein by reference.
- (58) Filed on June 19, 2019 as an exhibit to our Current Report on Form 8-K and incorporated herein by reference.
- (59) Filed on July 11, 2019 as an exhibit to our Current Report on Form 8-K and incorporated herein by reference.
- (60) Filed on September 30, 2019 as an exhibit to our Current Report on Form 8-K and incorporated herein by reference.
- (61) Filed on October 10, 2019 as an exhibit to our Current Report on Form 8-K and incorporated herein by reference.

October 29, 2019

Predictive Oncology Inc.
2915 Commers Drive, Suite 900
Eagan, Minnesota 55121

Ladies and Gentlemen:

We have acted as counsel to Predictive Oncology Inc., a Delaware corporation (the "Company"), in connection with the issuance and sale of up to 1,139,423 shares (as adjusted for the 1-for-10 reverse stock split effective for market purposes on October 29, 2019) of the Company's common stock, par value \$0.01 per share (the "Shares"). The Shares are included in a registration statement on Form S-1 filed by the Company with the Securities and Exchange Commission (the "Commission"). The Shares are being sold pursuant to an Equity Purchase Agreement (the "Agreement") dated October 24, 2019 by and between the Company and Oasis Capital, LLC (the "Investor").

In connection with this opinion, we have examined and relied upon the Registration Statement, including the exhibits thereto, the Agreement, the Certificate of Incorporation and Bylaws of the Company, each as amended to date, and such other documents, corporate records and instruments, and have examined such laws and regulations, as we have deemed necessary for purposes of rendering the opinions set forth herein. In rendering this opinion, we have assumed the genuineness and authenticity of all signatures on original documents; the genuineness and authenticity of all documents submitted to us as originals; the conformity to originals of all documents submitted to us as copies; the accuracy, completeness and authenticity of certificates of public officials; and the due authorization, execution and delivery of all documents where due authorization, execution and delivery are prerequisites to the effectiveness of such documents. As to any facts material to the opinions expressed herein which we have not independently established or verified, we have relied upon statements and representations of officers and other representatives of the Company and others.

Subject to the foregoing and the other matters set forth herein, it is our opinion that, as of the date hereof, when the Shares shall have been duly registered on the books of the transfer agent and registrar therefor in the name or on behalf of the Investor, and have been issued by the Company against payment therefor in the circumstances contemplated by the Agreement, the issue and sale of such shares will have been duly authorized by all necessary corporate action of the Company, and such shares will be validly issued, fully paid and nonassessable.

This opinion is being furnished in connection with the requirements of Item 601(b)(5) of Regulation S-K promulgated under the Act, and no opinion is expressed herein as to any matter pertaining to the contents of the Registration Statement or the Prospectus, other than as expressly stated herein with respect to the issue of Shares.

The opinions expressed herein are limited to the federal laws of the United States and the General Corporation Law of the State of Delaware. Our opinion is based on these laws as in effect on the date hereof. We express no opinion as to whether the laws of any particular jurisdiction are applicable to the subject matter hereof.

The opinions and statements expressed herein are as of the date hereof. We assume no obligation to update or supplement this opinion letter to reflect any facts or circumstances that may hereafter come to our attention or any changes in applicable law which may hereafter occur.

This opinion is for your benefit in connection with the Registration Statement and may be relied upon only by you and by persons entitled to rely upon it pursuant to the applicable provisions of the Act. We consent to your filing this opinion as an exhibit to a Registration Statement on Form S-1 to be incorporated by reference in the Registration Statement, and to the reference to our firm in the Prospectus under the heading "Legal Matters." In giving such consent, we do not thereby admit that we are in the category of persons whose consent is required under Section 7 of the Act or the rules and regulations of the Commission thereunder.

Very truly yours,

/s/ MASLON LLP
MASLON LLP

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in this Registration Statement on Form S-1 of our report dated April 1, 2019, relating to the consolidated financial statements of Predictive Oncology Inc. (the "Company"; f/k/a Precision Therapeutics Inc.) (which report expresses an unqualified opinion and includes an explanatory paragraph relating to the substantial doubt about the Company's ability to continue as a going concern as described in Note 1 to the financial statements) appearing in the Annual Report on Form 10-K of Predictive Oncology Inc. for the year ended December 31, 2018, and to the reference to us under the heading "Experts" in the Prospectus, which is part of this Registration Statement.

/s/ DELOITTE & TOUCHE LLP

Minneapolis, Minnesota
October 29, 2019



CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in this Registration Statement on Form S-1 of Predictive Oncology, Inc. of our report for the year ended December 31, 2017 dated April 2, 2018, except for Note 12 as to which the date is April 1, 2019, appearing in Annual Report on Form 10-K of Predictive Oncology, Inc. for the year ended December 31, 2018, as amended on Form 10-K/A filed on April 2, 2019, and to the reference to our firm under the heading "Experts" in the Prospectus.

Olsen Thielen & Co., Ltd.

Olsen Thielen + Co., LTD

Roseville, Minnesota
October 29, 2019

2675 Long Lake Road | Roseville, Minnesota | 55113-1117 | 651-483-4521 | 651-483-2467 FAX 300 | otcpas.com
Prairie Center Drive, Suite 300 | Eden Prairie, Minnesota | 55344-7908 | 952-941-9242 | 952-941-0577 FAX

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in this Registration Statement by Predictive Oncology Inc. on Form S-1 of our audit report, dated May 13, 2019 (September 25, 2019, as to the effects of the restatement discussed in Notes 3, 4 and 8), relating to the consolidated financial statements of Helomics Holding Corporation and Subsidiaries as of and for the years ended December 31, 2018 and 2017, which appears in Exhibit 99.1 to the Form 8-K/A report filed by Predictive Oncology Inc. on September 26, 2019. We also consent to the reference to our firm under the heading "Experts" in the Prospectus, which is part of this Registration Statement.

Schneider Downs & Co., Inc.

/s/ Schneider Downs & Co., Inc.

Pittsburgh, Pennsylvania
October 29, 2019