

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

FORM S-3

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

PRECISION THERAPEUTICS INC.

(Exact name of registrant as specified in its charter)

Delaware
(State or jurisdiction
of incorporation or organization)

33-1007393
(IRS Employer
Identification No.)

**2915 Commers Drive, Suite 900
Eagan, Minnesota 55121
(651) 389-4800**
(Address, including zip code, and telephone number, including
area code, of registrant's principal executive offices)

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

(Name, address, including zip code, and telephone number, including area code,
of agent for service)

**Copies of all correspondence to:
Martin R. Rosenbaum, Esq.
Maslon LLP
3300 Wells Fargo Center
90 South Seventh Street
Minneapolis, MN 55402
(612)-672-8326**

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

If the only securities being registered on this form are being offered pursuant to dividend or interest reinvestment plans, please check the following box.

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 registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

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 definition 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 share ⁽²⁾	Proposed maximum aggregate offering price ⁽²⁾	Amount of registration fee
Common stock, par value \$0.01 per share	166,667	\$0.9450	\$157,500.00	\$19.09

- (1) There is also being registered hereunder an indeterminate number of additional shares of common stock as shall be issuable pursuant to Rule 416 to prevent dilution resulting from stock splits, stock dividends or similar transactions.
- (2) Estimated solely for the purpose of calculating the registration fee in accordance with Rule 457 of the Securities Act based upon the per share average of high and low prices of the registrant's common stock on the Nasdaq Capital Market on February 11, 2019.

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. The selling stockholder 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 it is not soliciting an offer to buy these securities in any state where the offer, solicitation or sale is not permitted.

Subject to completion, dated February 13, 2019

PROSPECTUS

PRECISION THERAPEUTICS INC.

166,667 Shares of Common Stock

This prospectus relates to the proposed resale or other disposition from time to time of up to 166,667 shares of Precision Therapeutics Inc. (“Precision”) common stock, \$0.01 par value per share, by the selling stockholders identified in this prospectus. We are not selling any shares of common stock under this prospectus and will not receive any of the proceeds from the sale or other disposition of common stock by the selling stockholder.

The selling stockholders or their pledgees, assignees or successors-in-interest may offer and sell or otherwise dispose of the shares of common stock described in this prospectus from time to time through public or private transactions at prevailing market prices, at prices related to prevailing market prices or at privately negotiated prices. The selling stockholders will bear all commissions and discounts, if any, attributable to the sales of shares. We will bear all other costs, expenses and fees in connection with the registration of the shares. See “Plan of Distribution” beginning on page 6 for more information about how the selling stockholders may sell or dispose of their shares of common stock.

Our common stock is listed on the Nasdaq Capital Market under the symbol “AIPT.” On February 11, 2019, the last reported per share price of our common stock on the Nasdaq Capital Market was \$0.945 per share.

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 on page 3 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 stockholders 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 stockholders 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 “Precision,” the “Company,” “we,” “us,” and “our” refer to Precision Therapeutics Inc.

PROSPECTUS SUMMARY

The following is a summary of what we believe to be the most important aspects of our business and the offering of our securities under this prospectus. We urge you to read this entire prospectus, including the more detailed financial statements, notes to the financial statements and other information incorporated by reference from our other filings with the SEC. Each of the risk factors could adversely affect our business, operating results and financial condition, as well as adversely affect the value of an investment in our securities.

The Company

Precision Therapeutics (NASDAQ: AIPT) 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.

Precision's medicine business is committed to improving the effectiveness of cancer therapy using the power of artificial intelligence (AI) applied to rich data diseases databases. This business launched with Precision'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 our client's specific needs.

Precision 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. Precision 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, Precision 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 (as defined below) will provide the Company with full access to Helomics' suite of Artificial Intelligent, 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. The Merger Agreement amends and restates the Agreement and Plan of Merger dated June 28, 2018, previously entered into among the Company, Merger Sub and Helomics. The Merger Agreement contemplates a forward triangular merger whereby Helomics will merge with and into Merger Sub, with Merger Sub surviving the merger as a wholly-owned operating subsidiary of the Company (the "Merger").

Sold through the Skyline Medical business of Precision Therapeutics, 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 Precision's businesses, please carefully consider the information contained in our periodic reports filed with the SEC, which are incorporated by reference in this prospectus. Before making an investment decision, you should carefully consider such information as well as other information we include or incorporate by reference in this prospectus.

Description of the Private Placement

Effective as of February 7, 2019 (the “Effective Date”), Precision entered into a: (1) a Forbearance Agreement with each of L2 Capital, LLC (“L2”) and Peak One Opportunity Fund, LP (“Peak One”) and, together with L2, the “Investors”) (together, the “Forbearance Agreements”) and (2) an Amended and Restated Senior Secured Promissory Note with each of the Investors (together, the “Notes”).

The Notes amend and restate in their entirety the Senior Secured Promissory Notes dated September 28, 2018 issued by the Company to Investors (together, the “Existing Notes”). The Existing Notes were in the original principal amount of an aggregate \$2,297,727.50 and were issued in exchange for a \$2,000,000 (less commissions) investment by the Investors in the Company, with net proceeds to the Company of \$1,815,000 (the “Prior Offering”). In connection with the Prior Offering, the Company entered into, among other things, a Registration Rights Agreement with each of the Investors (together, the “Registration Rights Agreements”).

Pursuant to the Forbearance Agreements, the Investors will forbear on their rights to accelerate the Existing Notes and the Company will pay default penalties in connection with (1) a claimed event of default under the Registration Rights Agreements from the timing of filing a registration statement to register the Investors’ shares of the Company’s common stock issuable in connection with the Prior Offering and (2) an event of default under the Existing Notes from failing to obtain shareholder approval of the Company’s proposed merger with Helomics Holding Corporation (the “Merger”) by January 1, 2019.

On the Effective Date, the principal amount of the Existing Notes (and as amended and restated, the Notes) was increased by 15% of the current principal amount (i.e., by \$242,386 for L2 and \$102,273 for Peak One). On February 11, 2019, the Company issued 116,667 additional shares of common stock to L2 and 50,000 additional shares of common stock to Peak One (collectively, the “Forbearance Shares”). Pursuant to the Forbearance Agreements, the Company also agreed to use its best efforts to file with the SEC a registration statement covering the Forbearance Shares as soon as practicable, but in no event later than March 1, 2019, and to cause such registration statement to become effective as quickly as practicable.

The Company and the Investors also agreed that if (a) the Company obtains shareholder approval of the Merger by March 31, 2019, (b) the Registration Statement on Form S-3 filed by the Company on December 19, 2018 covering the Transaction Shares stays effective and (c) there are no other defaults under the Existing Notes (and as amended and restated, the Notes), the Registration Rights Agreements or any document issued in connection with the Offering, then the above defaults will be considered cured (the “Default Cure”), and the Notes will not be accelerated and no additional default penalties will be paid. If this is not accomplished or there is any other default under the transaction documents, the forbearance will end, the Notes will accelerate and the Investors may assert all of their rights.

Interest on the Existing Notes (and as amended and restated, the Notes) accrues at a default rate of 18% beginning November 15, 2018 through the date of the Default Cure. Upon certain financings, the Company is required to apply a portion of the proceeds to repayment of the Notes.

The foregoing description of the Forbearance Agreements and the Notes is qualified in its entirety by reference thereto, each of which has been incorporated by reference as an exhibit to the registration statement of which this prospectus is a part. See “Where You Can Find More Information” and “Incorporation of Certain Information by Reference.”

Corporate Information

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. 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.

Risk Factors

Our business is subject to numerous risks. For a discussion of the risks you should consider before purchasing shares of our common stock, see “Risk Factors” on page 3 of this prospectus.

The Offering

This prospectus relates to the proposed resale or other disposition from time to time of up to 166,667 shares of Precision Therapeutics Inc. (“Precision”) common stock, \$0.01 par value per share, by the selling stockholders identified in this prospectus. See “Selling Stockholders” and “Plan of Distribution.”

The selling stockholders may offer to sell the shares being offered in this prospectus at fixed prices, at prevailing market prices at the time of sale, at varying prices or at negotiated prices. Our common stock is listed on the Nasdaq Capital Market under the symbol “AIPT.”

We will not receive any of the proceeds from the sale of shares of our common stock in this offering. The selling stockholders will receive all of the proceeds from this offering. We will, however, receive the proceeds of any cash exercises of the warrants.

RISK FACTORS

Please carefully consider the risk factors described in our periodic reports filed with the SEC, which are incorporated by reference in this prospectus. Before making an investment decision, you should carefully consider these risks as well as other information we include or incorporate by reference in this prospectus. Additional risks and uncertainties not presently known to us or that we deem currently immaterial may also impair our business operations or adversely affect our results of operations or financial condition.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains, and the documents incorporated by reference herein and in any prospectus supplement hereto may contain, forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the “Securities Act”), and Section 21E of the Securities Exchange Act of 1934, as amended (the “Exchange Act”). These statements relate to future events or to our future financial performance and involve known and unknown risks, uncertainties and other factors which may cause our actual results, performance or achievements to be materially different from any future results, performances or achievements expressed or implied by the forward-looking statements. Specific factors that might cause actual results to differ from our expectations or may affect the value of the common stock, include, but are not limited to those discussed in this prospectus under the caption “Risk Factors” above as well as the risk factors contained in our filings with the SEC that are incorporated by reference in this prospectus.

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.

Further, any forward-looking statement speaks only as of the date on which it is made, and we undertake no obligation to update any forward-looking statement or statements to reflect events or circumstances after the date on which such statement is made or to reflect the occurrence of unanticipated events. New factors emerge from time to time, and it is not possible for us to predict which factors will arise. In addition, we cannot assess the impact of each factor on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements.

USE OF PROCEEDS

We will not receive any of the proceeds from the sale of shares of our common stock in this offering. The selling stockholders will receive all of the proceeds from this offering. We will, however, receive the proceeds of any cash exercises of the warrants.

SELLING STOCKHOLDERS

This prospectus relates to the proposed resale or other disposition from time to time of up to 166,667 shares of Precision Therapeutics Inc. (“Precision”) common stock, \$0.01 par value per share, by the selling stockholders identified in this prospectus. For additional information regarding the foregoing issuances, and the relationship between the selling stockholders and us, see “Prospectus Summary—Description of the Private Placement” above. We are registering the shares of common stock in order to permit the selling stockholders to offer the shares for resale from time to time.

The following table sets forth:

- the selling stockholders and other information regarding the beneficial ownership of the shares of common stock by the selling stockholders;
- the number of shares of common stock beneficially owned by the selling stockholders as of February 12, 2019, assuming: (1) the conversion of the two Amended and Restated Senior Secured Promissory Notes held by L2 and Peak One, respectively, on that date and (2) the exercise of warrants held by the selling stockholders on that date, without regard to any limitations on exercises prior to the sale of the shares covered by this prospectus;
- the number of shares that may be offered by the selling stockholders pursuant to this prospectus;
- the number of shares to be beneficially owned by the selling stockholders and their affiliates following the sale of any shares covered by this prospectus; and
- the percentage of our issued and outstanding common stock to be beneficially owned by the selling stockholders and their affiliates following the sale of all shares covered by this prospectus.

The selling stockholders may sell all, some or none of their shares in this offering. See “Plan of Distribution” below.

Selling Stockholder	Shares Beneficially Owned Before Offering ⁽¹⁾	Total Shares Offered By Selling Stockholder	Shares Beneficially Owned After Offering ^{(1) (2)}	Percentage of Beneficial Ownership After Offering ^{(1) (2)}
L2 Capital, LLC	715,393(3)	116,667	715,393(3)	4.99%
Peak One Opportunity Fund, LP	715,393(4)	50,000	715,393(4)	4.99%

- (1) Beneficial ownership is determined in accordance with SEC rules, beneficial ownership includes any shares as to which the stockholder has sole or shared voting power or investment power, and also any shares which the stockholder has the right to acquire within 60 days of the date hereof, whether through the exercise or conversion of any stock option, convertible security, warrant or other right. The indication herein that shares are beneficially owned is not an admission on the part of the stockholder that he, she or it is a direct or indirect beneficial owner of those shares. The beneficial ownership reflects the effects of provisions in the promissory notes and warrants held by the selling stockholders, which limit conversions and exercises that would exceed beneficial ownership of 4.99% as provided therein. The shares beneficially owned are based on 14,336,540 outstanding shares as of February 12, 2019.

- (2) Assumes sales of all shares offered under this prospectus by the selling stockholders.
- (3) L2 Capital, LLC (“L2”) was previously issued 455,000 inducement shares and the 116,667 forbearance shares offered hereby L2 is entitled to up to 1,419,830 shares issuable upon the conversion of an Amended and Restated Senior Secured Promissory Note and 939,261 shares issuable upon the exercise of warrants. Provisions in the Amended and Restated Senior Secured Promissory Note and warrants held by L2 limit conversions and exercises that would exceed 4.99% of the total outstanding shares of our Common Stock, which as of February 12, 2019 was 715,393 shares. Therefore, L2 shall be considered the beneficial owner of 715,393 shares both before and after the offering of the shares hereby.
- (4) Peak One was issued the 50,000 forbearance shares offered hereby and is also entitled up to 608,498 shares issuable upon the conversion of an Amended and Restated Senior Secured Promissory Note and 397,544 shares issuable upon the exercise of warrants. Provisions in the Amended and Restated Senior Secured Promissory Note and warrants held by Peak One limit conversions and exercises that would exceed 4.99% of the total outstanding shares of our Common Stock, which as of February 12, 2019 was 715,393 shares. Therefore, Peak One shall be considered the beneficial owner of 715,393 shares both before and after the offering of the shares hereby. Does not include 195,000 shares held by Peak One Investments, LLC (the “Peak GP”). Peak GP is the general partner of Peak One Opportunity Fund, LP (the “Peak One Fund”), and is wholly owned by Jason Goldstein. Jason Goldstein holds voting and dispositive power over the shares held by Peak One Fund and Peak GP. The shares held by the Peak GP are not being registered for resale pursuant to the registration statement of which this prospectus forms a part.

PLAN OF DISTRIBUTION

We are registering those forbearance shares issued to L2 Capital, LLC (“L2”) and Peak One Opportunity Fund, LP (“Peak One”, and together with L2, the “Selling Stockholders”) as described under “Prospectus Summary – Description of the Private Placement” above to permit the resale of these shares of common stock from time to time after the date of this prospectus. We will not receive any of the proceeds from the sale by the Selling Stockholders of the shares of common stock. We will bear all fees and expenses incident to our obligation to register the shares of common stock.

The Selling Stockholders may sell all or a portion of the shares of common stock held by them and offered hereby from time to time directly or through one or more underwriters, broker-dealers or agents. If the shares of common stock are sold through underwriters or broker-dealers, the Selling Stockholders will be responsible for underwriting discounts or commissions or agent’s commissions. The shares of common stock may be sold in one or more transactions at fixed prices, at prevailing market prices at the time of the sale, at varying prices determined at the time of sale or at negotiated prices. These sales may be effected in transactions, which may involve crosses or block transactions, pursuant to one or more of the following methods:

- on any national securities exchange or quotation service on which the securities may be listed or quoted at the time of sale;
- in the over-the-counter market;
- in transactions otherwise than on these exchanges or systems or in the over-the-counter market;
- through the writing or settlement of options, whether such options are listed on an options exchange or otherwise;
- 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;
- short sales made after the date the Registration Statement is declared effective by the SEC;
- broker-dealers may agree with a Selling Stockholder to sell a specified number of such shares at a stipulated price per share;
- a combination of any such methods of sale; and
- any other method permitted pursuant to applicable law.

The Selling Stockholders may also sell shares of common stock under Rule 144 promulgated under the Securities Act of 1933, as amended, if available, rather than under this prospectus. In addition, the Selling Stockholders may transfer the shares of common stock by other means not described in this prospectus. If the Selling Stockholders effect such transactions by selling shares of common stock to or through underwriters, broker-dealers or agents, such underwriters, broker-dealers or agents may receive commissions in the form of discounts, concessions or commissions from the Selling Stockholders or commissions from purchasers of the shares of common stock for whom they may act as agent or to whom they may sell as principal (which discounts, concessions or commissions as to particular underwriters, broker-dealers or agents may be in excess of those customary in the types of transactions involved). The Selling Stockholders may also loan or pledge shares of common stock to broker-dealers that in turn may sell such shares.

The Selling Stockholders may pledge or grant a security interest in some or all of the warrants or shares of common stock owned by them and, if the Selling Stockholders default in their performance of their secured obligations, the pledgees or secured parties may offer and sell the shares of common stock from time to time pursuant to this prospectus or any amendment to this prospectus under Rule 424(b)(3) or other applicable provision of the Securities Act amending, if necessary, the list of Selling Stockholders to include the pledgee, transferee or other successors in interest as Selling Stockholders under this prospectus. The Selling Stockholders also may transfer and donate the shares of common stock in other circumstances in which case the pledgees, assignees or successors-in-interest will be the selling beneficial owners for purposes of this prospectus.

To the extent required by the Securities Act and the rules and regulations thereunder, the Selling Stockholders and any broker-dealer participating in the distribution of the shares of common stock may be deemed to be “underwriters” within the meaning of the Securities Act, and any commission paid, or any discounts or concessions allowed to, any such broker-dealer may be deemed to be underwriting commissions or discounts under the Securities Act. At the time a particular offering of the shares of common stock is made, a prospectus supplement, if required, will be distributed, which will set forth the aggregate amount of shares of common stock being offered and the terms of the offering, including the name or names of any broker-dealers or agents, any discounts, commissions and other terms constituting compensation from the Selling Stockholders and any discounts, commissions or concessions allowed or re-allowed or paid to broker-dealers.

Under the securities laws of some states, the shares of common stock may be sold in such states only through registered or licensed brokers or dealers. In addition, in some states the shares of common stock may not be sold unless such shares have been registered or qualified for sale in such state or an exemption from registration or qualification is available and is complied with.

There can be no assurance that the Selling Stockholders will sell any or all of the shares of common stock registered pursuant to the registration statement, of which this prospectus forms a part.

The Selling Stockholders and any other person participating in such distribution will be subject to applicable provisions of the Securities Exchange Act of 1934, as amended, and the rules and regulations thereunder, including, without limitation, to the extent applicable, Regulation M of the Exchange Act, which may limit the timing of purchases and sales of any of the shares of common stock by the Selling Stockholders and any other participating person. To the extent applicable, Regulation M may also restrict the ability of any person engaged in the distribution of the shares of common stock to engage in market-making activities with respect to the shares of common stock. All of the foregoing may affect the marketability of the shares of common stock and the ability of any person or entity to engage in market-making activities with respect to the shares of common stock.

We will pay all expenses of the registration of the shares of common stock pursuant to the registration rights agreements with L2 and Peak One, estimated to be \$22,000 in total, including, without limitation, SEC filing fees and expenses of compliance with state securities or “blue sky” laws; provided, however, the Selling Stockholders will pay all underwriting discounts and selling commissions, if any. We will indemnify L2 and Peak One against liabilities, including some liabilities under the Securities Act in accordance with the registration rights, or L2 and Peak One may be entitled to contribution. We may be indemnified by L2 and Peak One against civil liabilities, including liabilities under the Securities Act that may arise from any written information furnished to us by L2 and Peak One specifically for use in this prospectus, in accordance with the related registration rights agreements or we may be entitled to contribution.

Once sold under the registration statement, of which this prospectus forms a part, the shares of common stock will be freely tradable in the hands of persons other than our affiliates.

LEGAL MATTERS

The validity of the common stock offered by this prospectus will be passed upon by Maslon LLP, Minneapolis, Minnesota.

EXPERTS

The financial statements of the Company as of December 31, 2017 and 2016 and for each of the two years in the period ended December 31, 2017 are incorporated by reference in this prospectus and the registration statement and have been so incorporated in reliance on the reports of Olsen Thielen & Co., Ltd, an independent registered public accounting firm, incorporated herein by reference, given on the authority of said firm as experts in auditing and accounting. The financial statements of Helomics Holding Corporation and Subsidiaries as of and for the nine months ended September 30, 2018 and the year ended December 31, 2017 are incorporated by reference in this prospectus and the registration statement and have been so incorporated in reliance on the reports of Schneider Downs & Co., Inc., an independent registered public accounting firm, incorporated herein by reference, given on the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND MORE INFORMATION

We are subject to the reporting requirements of the Securities Exchange Act of 1934, as amended, and file annual, quarterly and current reports, proxy statements and other information with the SEC. You can request copies of these documents by writing to the SEC and paying a fee for the copying cost. Please call the SEC at 1-800-SEC-0330 for more information about the operation of the public reference facilities. SEC filings are also available at the SEC's web site at <http://www.sec.gov>.

This prospectus is only part of a registration statement on Form S-3 that we have filed with the SEC under the Securities Act and therefore omits certain information contained in the registration statement. We have also filed exhibits and schedules with the registration statement that are excluded from this prospectus, and you should refer to the applicable exhibit or schedule for a complete description of any statement referring to any contract or other document. You may inspect a copy of the registration statement, including the exhibits and schedules, without charge, at the public reference room or obtain a copy from the SEC upon payment of the fees prescribed by the SEC.

We also maintain a website at www.precisiontherapeutics.com, through which you can access our SEC filings. The information set forth on, or accessible from, our website is not part of this prospectus.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to "incorporate by reference" information that we file with them. Incorporation by reference allows us to disclose important information to you by referring you to those other documents. The information incorporated by reference is an important part of this prospectus, and information that we file later with the SEC will automatically update and supersede this information. This prospectus omits certain information contained in the registration statement, as permitted by the SEC. You should refer to the registration statement and any prospectus supplement filed hereafter, including the exhibits, for further information about us and the securities we may offer pursuant to this prospectus. Statements in this prospectus regarding the provisions of certain documents filed with, or incorporated by reference in, the registration statement are not necessarily complete and each statement is qualified in all respects by that reference. Copies of all or any part of the registration statement, including the documents incorporated by reference or the exhibits, may be obtained upon payment of the prescribed rates at the offices of the SEC listed above in "Where You Can Find More Information." The documents we are incorporating by reference are:

- our Annual Report on Form 10-K for the fiscal year ended December 31, 2017, filed on March 31, 2018; our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2018, June 30, 2018 and September 30, 2018, filed on May 15, 2018, August 14, 2018 and November 14, 2018, respectively;

- our Current Reports on Form 8-K filed on (i) January 2, 2018, (ii) January 5, 2018, (iii) January 10, 2018, (iv) January 10, 2018, (v) January 16, 2018, (vi) February 1, 2018, (vii) February 6, 2018, (viii) April 2, 2018, (ix) April 4, 2018, (x) April 23, 2018, (xi) April 26, 2018, (xii) July 5, 2018, (xiii) August 8, 2018, (xiv) October 4, 2018, (xv) October 30, 2018 (provided, that the pro forma financial information of Precision Therapeutics Inc. and the historical financial statements of Helomics Holding Corporation are only incorporated by reference with respect to the year ended December 31, 2017), (xvi) November 6, 2018, (xvii) November 14, 2018, (xviii) November 14, 2018, (xix) November 19, 2018; (xx) December 4, 2018; (xxi) December 7, 2018; (xxii) January 3, 2019; (xxiii) January 14, 2019; (xxiv) January 17, 2019; (xxv) January 18, 2019; (xxvi) January 22, 2019; (xxvii) January 25, 2019; (xxviii) January 28, 2019; (xxix) February 7, 2019 and (xxx) February 12, 2019.
- The description of the our common stock under the caption “Description of Securities – Common Stock” in Amendment No. 1 to our registration statement on Form S-4 filed on March 25, 2016.

We also incorporate by reference any future filings (other than current reports furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits filed on such form that are related to such items unless such Form 8-K expressly provides to the contrary) made with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, including those made after the date of the initial filing of the registration statement of which this prospectus is a part and prior to effectiveness of such registration statement, until we file a post-effective amendment that indicates the termination of the offering of the securities made by this prospectus and will become a part of this prospectus from the respective dates that such documents are filed with the SEC. Any statement contained herein or in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes hereof or of the related prospectus supplement to the extent that a statement contained herein or in any other subsequently filed document which is also incorporated or deemed to be incorporated herein modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus.

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:

Precision Therapeutics Inc.
Attention: Bob Myers
2915 Commers Drive, Suite 900
Eagan, Minnesota 55121
(651) 389-4800

You should rely only on information contained in, or incorporated by reference into, this prospectus and any prospectus supplement. We have not authorized anyone to provide you with information different from that contained in this prospectus or incorporated by reference in this prospectus. We are not making offers to sell the securities in any jurisdiction in which such an offer or solicitation is not authorized or in which the person making such offer or solicitation is not qualified to do so or to anyone to whom it is unlawful to make such offer or solicitation.

PART II
INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution.

The following table sets forth the fees and expenses, other than underwriting compensation, payable in connection with the registration of securities hereunder. All amounts are estimates except for the SEC registration fee.

SEC Registration Fee	\$ 19.09
Legal Fees and Expenses	\$ 10,000.00
Accounting Fees and Expenses	\$ 10,000.00
Miscellaneous	\$ 1,980.91
Total	<u>\$ 22,000.00</u>

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.

The exhibits to this registration statement are listed in the Exhibit Index to this registration statement, which Exhibit Index is hereby incorporated by reference.

Item 17. Undertakings.

(a) The undersigned Registrant hereby undertakes:

(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, any 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 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and

(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;

provided, however, that the undertakings set forth in paragraphs (1)(i), (1)(ii) and (1)(iii) above do not apply if the registration statement is on Form S-3 or Form F-3 and the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement or is contained in a form of prospectus filed pursuant to Rule 424(b) that is a part of 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 under the Securities Act of 1933 to any purchaser:

(A) 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

(B) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (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), (vii), or (x) for the purpose of providing the information required by section 10(a) of the Securities Act of 1933 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.

(6) 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 section 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.

(7) Insofar as indemnification for liabilities arising under the Securities Act of 1933 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 Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act of 1933 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 whether such indemnification by it is against public policy as expressed in the Securities Act of 1933 and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Minneapolis, State of Minnesota, on February 13, 2019.

PRECISION THERAPEUTICS INC.

By: /s/ Bob Myers
 Bob Myers, Chief Financial Officer

POWER OF ATTORNEY

Each person whose signature to this registration statement appears below hereby constitutes and appoints Carl Schwartz and Bob Myers, signing singly as his or her true and lawful attorney-in-fact and agent, with full power of substitution, to sign on his behalf individually and in the capacity stated below and to perform any acts necessary to be done in order to file all amendments to this registration statement and any and all instruments or documents filed as part of or in connection with this registration statement or the amendments thereto and each of the undersigned does hereby ratify and confirm all that said attorney-in-fact and agent, or his substitutes, shall do or cause to be done by virtue hereof. The undersigned also grants to said attorney-in-fact, full power and authority to do and perform any and all acts necessary or incidental to the performance and execution of the powers herein expressly granted. This Power of Attorney shall remain in effect until revoked in writing by the undersigned.

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

<u>Name</u>	<u>Title</u>	<u>Date</u>
<u> /s/ Carl Schwartz </u> Carl Schwartz	Chief Executive Officer (principal executive officer) and Director	February 13, 2019
<u> /s/ Bob Myers </u> Bob Myers	Chief Financial Officer (principal financial and accounting officer)	February 13, 2019
<u> /s/ J. Melville Engle </u> J. Melville Engle	Director	February 13, 2019
<u> /s/ Richard L. Gabriel </u> Richard L. Gabriel	Director	February 13, 2019
<u> /s/ Timothy A. Krochuk </u> Timothy A. Krochuk	Director	February 13, 2019
<u> /s/ Thomas J. McGoldrick </u> Thomas J. McGoldrick	Director	February 13, 2019
<u> /s/ Andrew P. Reding </u> Andrew P. Reding	Director	February 13, 2019

EXHIBIT INDEX

Exhibit Number	Description
<u>2.1</u>	<u>Agreement and Plan of Merger, dated December 16, 2013, between Skyline Medical Inc., a Minnesota corporation, and the registrant (1) Exhibit 2.1</u>
<u>2.2</u>	<u>Agreement and Plan of Merger dated August 9, 2017 (2) Exhibit 2.2</u>
<u>2.3</u>	<u>Agreement and Plan of Merger dated June 28, 2018, by and among registrant, Helomics Acquisition, Inc. and Helomics Holding Corporation (3) Exhibit 2.3</u>
<u>2.4</u>	<u>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 (14) Exhibit 2.4</u>
<u>3.1</u>	<u>Certificate of Incorporation (1) Exhibit 3.1</u>
<u>3.2</u>	<u>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</u>
<u>3.3</u>	<u>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</u>
<u>3.4</u>	<u>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</u>
<u>3.5</u>	<u>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</u>
<u>3.6</u>	<u>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</u>
<u>3.7</u>	<u>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</u>
<u>3.8</u>	<u>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</u>
<u>3.9</u>	<u>Amended and Restated Bylaws (10) Exhibit 3.9</u>
<u>3.10</u>	<u>Form of Certificate of Designation of Preferences, Rights and Limitations of Series B Convertible Preferred Stock (11) Exhibit 3.10</u>
<u>3.11</u>	<u>Certificate of Designation of Preferences, Rights and Limitations of Series C Convertible Preferred Stock (12) Exhibit 3.11</u>
<u>4.1</u>	<u>Common Stock Purchase Warrant issued to L2 Capital, LLC dated September 28, 2018 (13) Exhibit 4.1</u>
<u>4.2</u>	<u>Common Stock Purchase Warrant issued to Peak One Opportunity Fund, LP dated September 28, 2018 (13) Exhibit 4.2</u>

- [5.1*](#) [Opinion of Maslon LLP as to the validity of the securities being registered](#)
- [10.1](#) [Securities Purchase Agreement by and between the Company and L2 Capital, LLC dated September 28, 2018 \(13\) Exhibit 10.1](#)
- [10.2](#) [Senior Secured Promissory Note issued to L2 Capital, LLC dated September 28, 2018 \(13\) Exhibit 10.2](#)
- [10.3](#) [Registration Rights Agreement by and between the Company and L2 Capital, LLC dated September 28, 2018 \(13\) Exhibit 10.3](#)
- [10.4](#) [Security Agreement by and between the Company and L2 Capital, LLC dated September 28, 2018 \(13\) Exhibit 10.4](#)
- [10.5](#) [Securities Purchase Agreement by and between the Company and Peak One Opportunity Fund, LP dated September 28, 2018 \(13\) Exhibit 10.5](#)
- [10.6](#) [Senior Secured Promissory Note issued to Peak One Opportunity Fund, LP dated September 28, 2018 \(13\) Exhibit 10.6](#)
- [10.7](#) [Registration Rights Agreement by and between the Company and Peak One Opportunity Fund, LP dated September 28, 2018 \(13\) Exhibit 10.7](#)
- [10.8](#) [Security Agreement by and between the Company and Peak One Opportunity Fund, LP dated September 28, 2018 \(13\) Exhibit 10.8](#)
- [10.9](#) [Forbearance Agreement by and between the Company and L2 Capital, LLC dated February 7, 2019 \(15\) Exhibit 10.9](#)
- [10.10](#) [Amended and Restated Senior Secured Promissory Note issued to L2 Capital, LLC dated February 7, 2019 \(15\) Exhibit 10.10](#)
- [10.11](#) [Forbearance Agreement by and between the Company and Peak One Opportunity Fund, LP dated February 7, 2019 \(15\) Exhibit 10.11](#)
- [10.12](#) [Amended and Restated Senior Secured Promissory Note issued to Peak One Opportunity Fund, LP dated February 7, 2019 \(15\) Exhibit 10.12](#)
- [23.1*](#) [Consent of Olsen Thielen & Co., Ltd.](#)
- [23.2*](#) [Consent of Schneider Downs & Co., Inc.](#)
- [23.3*](#) [Consent of Maslon LLP \(included as part of Exhibit 5.1\)](#)
- [24.1*](#) [Power of Attorney \(included on signature page hereto\)](#)

* Filed herewith

- (1) Filed on December 19, 2013 as an exhibit to Precision's Current Report on Form 8-K and incorporated herein by reference.
 - (2) Filed on August 11, 2017 as an exhibit to Precision's Current Report on Form 8-K and incorporated herein by reference.
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- (3) Filed on July 5, 2018 as an exhibit to Precision's Current Report on Form 8-K and incorporated herein by reference.
 - (4) Filed on October 24, 2014 as an exhibit to Precision's Current Report on Form 8-K and incorporated herein by reference.
 - (5) Filed on June 30, 2015 as an appendix to Precision's Information Statement on Schedule 14C and incorporated herein by reference.
 - (6) Filed on September 16, 2016 as an exhibit to Precision's Current Report on Form 8-K and incorporated herein by reference.
 - (7) Filed on October 27, 2016 as an exhibit to Precision's Current Report on Form 8-K and incorporated herein by reference.
 - (8) Filed on January 27, 2017 as an exhibit to Precision's Current Report on Form 8-K and incorporated herein by reference.
 - (9) Filed on January 2, 2018 as an exhibit to Precision's Current Report on Form 8-K and incorporated herein by reference.
 - (10) Filed on February 6, 2018 as an exhibit to Precision's Current Report on Form 8-K and incorporated herein by reference.
 - (11) Filed on August 20, 2015 as an exhibit to Precision's Registration Statement on Form S-1 (File No. 333-198962) and incorporated herein by reference.
 - (12) Filed on November 29, 2017 as an exhibit to Precision's Current Report on Form 8-K and incorporated herein by reference.
 - (13) Filed on October 4, 2018 as an exhibit to Precision's Current Report on Form 8-K and incorporated herein by reference.
 - (14) Filed on October 30, 2018 as an exhibit to Precision's Current Report on Form 8-K and incorporated herein by reference.
 - (15) Filed on February 12, 2019 as an exhibit to Precision's Current Report on Form 8-K and incorporated herein by reference.
-

[MASLON LLP LETTERHEAD]

February 13, 2019

Precision Therapeutics Inc.
2915 Commers Drive, Suite 900
Eagan, Minnesota 55121

Re: Registration Statement on Form S-3

Ladies and Gentlemen:

We have acted as counsel for Precision Therapeutics Inc., a Delaware corporation (the “*Company*”), in connection with registration on the Company’s Registration Statement on Form S-3 (Registration Statement No. 333-_____) (the “*Registration Statement*”), under the Securities Act of 1933 (the “*Act*”), of the resale by the selling stockholders named therein (the “*Selling Stockholders*”) of an aggregate of 166,667 shares (the “*Shares*”) of the Company’s common stock, \$.01 par value, issued to the Selling Stockholders in connection with Forbearance Agreements dated as of February 7, 2019, by and between the Company and each of the Selling Stockholders.

This opinion is being furnished in accordance with the requirements of Item 601(b)(5) of Regulation S-K under the Act.

In arriving at the opinion expressed below, we have examined originals, or copies certified or otherwise identified to our satisfaction as being true and complete copies of the originals, of such documents, corporate records, certificates of officers of the Company and of public officials and other instruments as we have deemed necessary or advisable to enable us to render the opinions set forth below. In our examination, we have assumed without independent investigation the genuineness of all signatures, the legal capacity and competency of all natural persons, the authenticity of all documents submitted to us as originals and the conformity to original documents of all documents submitted to us as copies.

We express no opinion herein as to the laws of any state or jurisdiction other than the General Corporation Law of the State of Delaware (including the statutory provisions and all applicable judicial decisions interpreting those laws) and the federal laws of the United States of America.

Based upon the following and upon the representations and information provided by the Company, we hereby advise you that, in our opinion, the Shares were duly authorized and validly issued, and are fully paid and nonassessable.

We hereby consent to the filing of this opinion as an exhibit to the Registration Statement, and to the reference to our firm under the heading “Legal Matters” in the prospectus comprising a part of the Registration Statement. This opinion is expressed as of the date hereof unless otherwise expressly stated, and we disclaim any undertaking to advise you of any subsequent changes in the facts stated or assumed herein or of any subsequent changes in applicable laws.

Very truly yours,

/s/ MASLON LLP



CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in this Registration Statement on Form S-3 of our report dated April 2, 2018, on the financial statements of Precision Therapeutics Inc., which appears in the Annual Report on Form 10-K of Precision Therapeutics Inc. for the year ended December 31, 2017, and to the reference to our firm under the heading "Experts" in the Prospectus.

Olsen Thielen & Co., Ltd.

Olsen Thielen & Co., Ltd

Roseville, Minnesota

February 13, 2019

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in this Registration Statement by Precision Therapeutics Inc. on Form S-3 of our audit report, dated August 30, 2018 (October 17, 2018, as to the effects of the restatement discussed in Note 3 and Note 5), relating to the consolidated financial statements of Helomics Holding Corporation and Subsidiaries as of and for the year ended December 31, 2017, which appears in Exhibit 99.3 to the Form 8-K report filed by Precision Therapeutics Inc. on October 30, 2018. We also consent to the incorporation by reference in this Registration Statement of our audit report, dated January 22, 2019, relating to the consolidated financial statements of Helomics Holding Corporation and Subsidiaries as of and for the nine months ended September 30, 2018, which appears in Exhibit 99.1 to the Form 8-K/A report filed by Precision Therapeutics Inc. on January 28, 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

February 13, 2019
