

PROSPECTUS

PRECISION THERAPEUTICS INC.

4,101,219 Shares of Common Stock

This prospectus relates to the proposed resale or other disposition from time to time of up to 4,101,219 shares of Precision Therapeutics Inc. ("Precision") common stock, \$0.01 par value per share, by the selling stockholders identified in this prospectus. Of these shares, up to 2,028,328 are shares of common stock that may be issued upon conversion of two promissory notes held by two of the selling stockholders and 1,422,894 are shares issuable upon the exercise of warrants held by the selling stockholders. 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 7 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 January 9, 2019, the last reported per share price of our common stock on the Nasdaq Capital Market was \$0.74 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 5 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 January 30, 2019.

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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 September 28, 2018 (the “Effective Date”), Precision entered into a Securities Purchase Agreement with each of L2 Capital, LLC (“L2”) and Peak One Opportunity Fund, LP (“Peak One”) (together, the “Securities Purchase Agreements”). Pursuant to the Securities Purchase Agreements, the Company issued a convertible promissory note to each of Peak One and L2 (together, the “Notes”) in the original principal amount of an aggregate \$2,297,727.50 in exchange for an investment of \$2,000,000, less commissions, with net proceeds to the Company of \$1,815,000. Pursuant to a Security Agreement between the Company and each of Peak One and L2 (the “Security Agreements”), the Company granted to each of Peak One and L2 a security interest in its assets to secure repayment of the Notes. The Company has agreed to loan one-half of the net proceeds to Helomics. Due to the timing of certain aspects of the closing, the Company expects that the transaction will be reported in its financial statements for the fourth quarter of 2018. The Securities Purchase Agreements also provide for a second investment of an aggregate of \$500,000 by Peak One and L2 at the consummation of the Company’s pending merger transaction with Helomics, at which point the aggregate principal amounts of the Notes will become \$2,865,909.00.

As additional consideration for the investment, the Company issued an aggregate 650,000 shares of its common stock (the “Inducement Shares”) to Peak One and L2 or their affiliates plus warrants (the “Warrants”) to acquire shares of the Company’s common stock (the “Warrant Shares”) at an exercise price of \$1.155 per share. Upon the closing of the first investment, the Warrants became exercisable for up to an aggregate of 1,071,776 Warrant Shares. Upon the closing of the second investment, the Warrants will become exercisable for up to an aggregate of 1,336,805 Warrant Shares. Each Warrant is exercisable by Peak One and L2, as applicable, beginning on the sixth month anniversary of the Effective Date through the fifth -year anniversary thereof.

The maturity date of the Notes is twelve months from the Effective Date. The Notes accrue interest at a rate of 8% per annum (with twelve months of interest guaranteed). The Notes may be prepaid in any amount, subject to the following prepayment penalties: (1) during the first 30 days after the Effective Date, any amount prepaid will be subject to a 5% prepayment penalty; (2) during the next 30 days thereafter, any amount prepaid will be subject to a 10% prepayment penalty; (3) during the next 30 days thereafter, any amount prepaid will be subject to a 15% prepayment penalty; (4) during the next 30 days thereafter, any amount prepaid will be subject to a 20% prepayment penalty; and (5) any amount prepaid after the 120th calendar day after the Effective Date will be subject to a 25% prepayment penalty.

Upon the earlier to occur of an Event of Default (as defined in the Notes) or the filing of certain registration statements, each of Peak One and L2 will have the right at any time thereafter to convert all or any part of their respective Notes into shares of the Company’s common stock at a conversion price which is equal to the lesser of: (i) \$1.00 and (ii) 70% of the lowest volume-weighted average price of the Company’s common stock during the 20-trading day period ending on either the last complete trading day prior to the conversion date, or the conversion date (“Conversion Shares”). The number of Conversion Shares that may be issued is subject to an exchange cap such that the sum of (a) the total number of Conversion Shares plus (b) the number of Inducement Shares is limited to an aggregate 2,678,328 shares.

Pursuant to a Registration Rights Agreement between the Company and each of Peak One and L2 (the “Registration Rights Agreements”), the Company has agreed, among other things, to file with the SEC a registration statement covering the Inducement Shares and any other shares issuable under the transaction documents and to use its reasonable best efforts to cause such registration statement to become effective before November 15, 2018. No later than January 31, 2019, the Company must also cause the Conversion Shares to be registered on a registration statement with the SEC.

Dawson James Securities, Inc. (“Dawson”) acted as the Company’s lead placement agent with respect to the foregoing transactions with L2 and Peak One, and as compensation therefore, the Company issued to Dawson and certain Dawson affiliates warrants (the “Dawson Warrants”) to purchase up to an aggregate of 86,086 shares of the Company’s common stock at an exercise price of \$1.3125 per share.

The foregoing description of each of the Securities Purchase Agreements, the Notes, the Warrants, the Registration Rights Agreements, the Security Agreements and the Dawson Warrants 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 5 of this prospectus.

The Offering

This prospectus relates to the proposed resale or other disposition from time to time of up to 4,101,222 shares of Precision Therapeutics Inc. (“Precision”) common stock, \$0.01 par value per share, by the selling stockholders identified in this prospectus. Of these shares, up to 2,028,328 are shares of common stock that may be issued upon conversion of two Senior Secured Promissory Notes (the “Notes”) held by two of the selling stockholders and 1,422,894 are shares issuable upon the exercise of warrants held by the selling stockholders. 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 4,101,219 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 January 9, 2019, assuming: (1) the conversion of the two 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	Number of Shares Offered by Selling Stockholder Upon Exercise of Certain Warrants	Shares Beneficially Owned After Offering ^{(1) (2)}	Percentage of Beneficial Ownership After Offering ^{(1) (2)}
L2 Capital, LLC	2,814,091 ⁽³⁾	1,874,830	939,261	0	0
Peak One Opportunity Fund, LP	1,006,042 ⁽⁴⁾	608,498	397,544	0	0
Peak One Investments, LLC	195,000 ⁽⁵⁾	195,000	0	0	0
Dawson James Securities, Inc.	51,655 ⁽⁶⁾	0	51,655	0	0
Robert D. Keyser, Jr.	4,303 ⁽⁶⁾	0	4,303	0	0
R. Douglas Armstrong	4,303 ⁽⁶⁾	0	4,303	0	0
David H. Weinstein	25,825 ⁽⁶⁾	0	25,825	0	0

- (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.

- (2) Assumes sales of all shares offered under this prospectus by the selling stockholders.
- (3) Includes 455,000 inducement shares, up to 1,419,830 shares issuable upon the conversion of a Senior Secured Promissory Note and 939,261 shares issuable upon the exercise of warrants.
- (4) Includes up to 608,498 shares issuable upon the conversion of a Senior Secured Promissory Note and 397,544 shares issuable upon the exercise of warrants.
- (5) Consists of 195,000 inducement shares.
- (6) Consists of shares issuable upon the exercise of warrants.

PLAN OF DISTRIBUTION

We are registering: (a) those inducement shares issued to L2 Capital, LLC (“L2”) and Peak One Investments, LLC, the general partner of Peak One Opportunity Fund, LP (“Peak One”) as additional consideration for L2’s and Peak One’s September 28, 2018 investment in the Company as described under “Prospectus Summary – Description of the Private Placement” above; (b) those shares issuable to L2 and Peak One upon conversion of the two Senior Secured Promissory Notes held by L2 and Peak One, respectively; and (3) those shares issuable upon the exercise of warrants held by L2, Peak One, and Dawson James Securities Inc. (“Dawson”) and its affiliates (collectively, the “Selling Stockholders”) 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, however, receive the proceeds of any cash exercises of the warrants. 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 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 may read and copy these reports, proxy statements and other information at the SEC's public reference facilities at 100 F Street, N.E., Washington, D.C. 20549. 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; and (xxii) January 3, 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.