

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

**FORM S-1**

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

**PAIN THERAPEUTICS, INC.**

(Exact name of registrant as specified in its charter)

**Delaware**  
(State or other jurisdiction of  
incorporation or organization)

**000-29959**  
(Primary Standard Industrial  
Classification Code Number)

**91-1911336**  
(I.R.S. Employer  
Identification Number)

**7801 N. Capital of Texas Highway, Suite 260**  
**Austin, TX 78731**  
**(512) 501-2444**  
(Address, including zip code, and telephone number, including  
area code, of registrant's principal executive offices)

**Remi Barbier**  
**Chairman of the Board of Directors, President and Chief Executive Officer**  
**7801 N. Capital of Texas Highway, Suite 260**  
**Austin, TX 78731**  
**(512) 501-2444**  
(Name, address, including zip code, and telephone number, including  
area code, of agent for service)

**With Copies to:**

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**Approximate date of commencement of proposed sale to the public: As soon as practicable after the effective date hereof.**

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 check the following box.

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

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

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

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer

Accelerated filer

Non-accelerated filer

Smaller reporting company

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act.

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**CALCULATION OF REGISTRATION FEE**

<b>Title of Each Class of Securities to be Registered</b>	<b>Amount to be Registered<sup>(1)</sup></b>	<b>Proposed Maximum Offering Price Per Share<sup>(3)</sup></b>	<b>Proposed Maximum Aggregate Offering Price</b>	<b>Amount of Registration Fee</b>
<b>Common Stock, \$0.001 par value per share<sup>(2)</sup></b>	9,126,601	\$1.09	\$9,947,995.09	\$1,205.70

- (1) Pursuant to Rule 416 under the Securities Act, the securities being registered hereunder include such indeterminate number of additional shares of common stock, \$0.001 par value per share ("Common Stock") as may be issued after the date hereof as a result of stock splits, stock dividends or similar transactions.
- (2) Represents the resale of shares of Common Stock issuable upon the exercise of certain warrants issued in private placements described herein. Pursuant to Rule 416(a) under the Securities Act of 1933, as amended (the "Securities Act"), this Registration Statement shall also cover an indeterminate amount and number of each identified class of the identified securities as may be issued upon conversion, exchange, exercise or settlement of any other securities that provide for such conversion, exchange, exercise or settlement.
- (3) Estimated solely for the purpose of computing the amount of the registration fee for the shares of common stock issuable upon exercise of warrants being registered in accordance with Rule 457(c) under the Securities Act based upon the average of the high and low prices for a share of the registrant's common stock as reported on The Nasdaq Capital Market on December 13, 2018, which date is within five business days of the filing of this registration statement.

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, as amended, 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 stockholders may not sell these securities pursuant to this prospectus until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and is not soliciting offers to buy these securities in any jurisdiction where the offer or sale is not permitted.**

**SUBJECT TO COMPLETION, DATED DECEMBER 18, 2018**

**PROSPECTUS**



**9,126,601 Shares of Common Stock  
Issuable upon Exercise of Outstanding Warrants**

This prospectus relates to the resale, from time to time, by the selling stockholders identified in this prospectus under the caption "Selling Stockholders," of up to 9,126,601 shares of our common stock they may acquire upon the exercise of outstanding warrants. We issued the warrants to the selling stockholders in a private placement financing we completed in August 17, 2018. We are registering the applicable shares of our common stock to provide the selling stockholders with freely tradable securities. The registration of the shares of our common stock covered by this prospectus does not necessarily mean that any shares of our common stock will be sold by any of the selling stockholders, and we cannot predict when or in what amounts any of the selling stockholders may sell any of our shares of common stock offered by this prospectus. The prices at which the selling stockholders may sell the shares of our common stock will be determined by prevailing market prices or at prices that may be obtained in negotiated transactions.

We are not selling any shares of our common stock under this prospectus and will not receive any proceeds from any sale or disposition by the selling stockholders of the shares of our common stock covered by this prospectus. However, we will receive proceeds in connection with the applicable exercise price of the warrants to purchase shares of our common stock, which, if exercised in cash with respect to all of the 9,126,601 shares of common stock offered hereby, would result in gross proceeds to us of approximately \$11.5 million, but under certain circumstances such warrants may be exercised via cashless exercise. In addition, we will pay all fees and expenses incident to the registration of the resale of shares of our common stock under this prospectus. The selling stockholders from time to time may offer and sell the shares of our common stock held by them directly or through one or more underwriters, broker-dealers or agents on terms to be determined at the time of sale, as described in more detail in this prospectus under "Plan of Distribution." No shares of our common stock may be sold without delivery of this prospectus describing the method and terms of the offering of such shares.

Our common stock is listed and trades on The Nasdaq Capital Market under the symbol "PTIE." The last reported sale price of our common stock on The Nasdaq Capital Market on December 13, 2018 was \$1.09 per share.

Investing in our securities involves a high degree of risk. Before making any investment decision, you should carefully review and consider all the information in this prospectus and the documents incorporated by reference herein and therein, including the risks and uncertainties described under "Risk Factors" beginning on page S-7 of this prospectus and the risk factors 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 \_\_\_\_\_, 2018.

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## **ABOUT THIS PROSPECTUS**

This prospectus relates to the resale by the selling stockholders identified in this prospectus under the caption “Selling Stockholders,” from time to time, of up to an aggregate of 9,126,601 shares of our common stock, par value \$0.001 per share, issuable upon exercise of certain outstanding common stock purchase warrants. As described below under “Prospectus Summary—Equity Offering,” the shares of our common stock registered by this prospectus are issuable upon exercise of warrants to purchase up to 8,860,778 shares of our common stock for an exercise price of \$1.25 per share issued on August 17, 2018 and warrants to purchase up to 265,823 shares of our common stock for an exercise price of \$1.59 per share issued on August 17, 2018, all of which are exercisable by the selling stockholders. We are not selling any shares of our common stock under this prospectus, and we will not receive any proceeds from the sale of shares of common stock offered hereby by the selling stockholders. The registration statement containing this prospectus, including the exhibits to the registration statement, provides additional information about us and the securities offered under this prospectus. The registration statement, including the exhibits, can be read on the SEC’s website or at the SEC offices mentioned under the heading “Where You Can Find More Information.”

You should rely only on the information contained or incorporated by reference in this prospectus. We have not authorized any other person to provide you with different information. If anyone provides you with different information, you should not rely on it. This prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information contained in this prospectus and the documents incorporated by reference herein and therein are accurate only as of the date such information is presented. Neither the delivery of this prospectus nor any sale made in connection with this prospectus, under any circumstances, create any implication that there has been no change in our affairs since the date of this prospectus or that the information contained by reference to this prospectus is correct as of any time after its date.

This prospectus may be supplemented from time to time to add, update or change information in this prospectus. Any statement contained in this prospectus will be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in such prospectus modifies or supersedes such statement. Any statement so modified will be deemed to constitute a part of this prospectus is only as so modified, and any statement so superseded will be deemed not to constitute a part of this prospectus.

Unless otherwise expressly stated or the context otherwise requires, references in this prospectus to (i) “Pain Therapeutics,” “the Company,” “we,” “us,” and “our” refer to Pain Therapeutics, Inc., a Delaware corporation, and (ii) “common stock” refer to shares of the Company’s common stock, \$0.001 par value per share.

## FORWARD-LOOKING STATEMENTS

This prospectus, as well as the information incorporated by reference herein and therein, contain certain statements that constitute “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995 and releases issued by the SEC and within the meaning of Section 27A of the Securities Act of 1933, as amended (the “Securities Act”) and Section 21E of the Exchange Act of 1934, as amended (the “Exchange Act”). Forward-looking statements relate to expectations, beliefs, projections, future plans and strategies, anticipated events or trends and similar expressions concerning matters that are not historical facts. In some cases, you can identify forward-looking statements by terms such as “anticipate,” “believe,” “could,” “estimate,” “expect,” “intend,” “may,” “plan,” “potential,” “should,” “will” and “would” or the negatives of these terms or other comparable terminology.

The forward-looking statements are based on our beliefs, assumptions and expectations of our future performance, taking into account all information currently available to us. Forward-looking statements involve risks and uncertainties and our actual results and the timing of events may differ significantly from the results discussed in the forward-looking statements. Examples of such forward-looking statements include, but are not limited to statements about:

- Our ability to initiate, conduct or complete Phase II clinical studies with PTI-125, our product candidate targeted at Alzheimer’s disease;
- the potential benefits of our product candidates, such as PTI-125 or PTI-125Dx, including the potential ability of PTI-125 to prevent or reverse amyloid-related Alzheimer’s damage or PTI-125Dx to diagnose Alzheimer’s disease;
- the outcome of research and development activities, including, without limitation, development activities for PTI-125, PTI-125 Dx and FENROCK™;
- discussions with potential strategic partners for the development and commercialization of our product candidates;
- the timing, topics and outcomes of our discussions with the FDA regarding REMOXY® ER (oxycodone capsules CII), or REMOXY, including whether we cease development of REMOXY;
- the utility of protection, or the sufficiency, of our intellectual property;
- potential competitors or competitive products;
- expected future sources of revenue and capital and increasing cash needs;
- market acceptance of our drug candidates and potential drug candidates;
- expectations regarding trade secrets, technological innovations, licensing agreements and outsourcing of certain business functions;
- expenses increasing or fluctuations in our financial or operating results;
- operating losses and anticipated operating and capital expenditures;
- expectations regarding the issuance of shares of common stock to employees pursuant to equity compensation awards net of employment taxes;
- anticipated hiring and development of our internal systems and infrastructure;
- the sufficiency of our current resources to fund our operations over the next 12 months; and
- assumptions and estimates used for our disclosures regarding stock-based compensation.

Such forward-looking statements involve risks and uncertainties, including, but not limited to, those risks and uncertainties relating to:

- difficulties or delays in development, testing, clinical trials (including patient enrollment), regulatory authorization or approval, production and commercialization of PTI-125, PTI-125Dx or our other product candidates;
- difficulties or delays in potentially obtaining regulatory approval of PTI-125, PTI-125Dx or our other product candidates;
- having or obtaining sufficient resources for the successful development, manufacture and commercialization of our product candidates;
- unexpected adverse side effects or inadequate therapeutic efficacy, or manufacturing or stability issue of our product candidates that could slow or prevent product approval (including the risk that current and past results of clinical trials are not indicative of future results of clinical trials) or potential post-approval market acceptance;
- difficulties or delays in development, testing, clinical trials (including patient enrollment), regulatory authorization or approval, production and commercialization of our drug candidates;
- the uncertainty of protection of our intellectual property rights or trade secrets;
- potential infringement of the intellectual property rights of third parties;
- pursuing in-license and acquisition opportunities;
- maintenance or third-party funding of our collaboration and license agreements;
- legislation or regulatory actions affecting product pricing, reimbursement or access;
- significant breakdown or interruption of our information technology and infrastructure;
- significant issues that may arise related to outsourcing certain preclinical studies, clinical trials and formation and manufacturing activities;
- hiring and retaining personnel; and
- our financial position and our ability to obtain additional financing if necessary.

Please also refer to the section entitled “Risk Factors” in this prospectus and in our Annual Report on Form 10-K for the fiscal year ended December 31, 2017 and our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2018, June 30, 2018 and September 30, 2018 as such risk factors may be amended, updated or modified periodically in our reports filed with the SEC, and the financial data and related notes and the reports incorporated by reference in this prospectus, for further information on these and other risks affecting us.

We caution you not to place undue reliance on forward-looking statements because our future results may differ materially from those expressed or implied by them. We do not intend or assume any obligation to update any forward-looking statement, whether written or oral, relating to the matters discussed in this prospectus, except as required by law.

## PROSPECTUS SUMMARY

*This summary highlights certain information about us, this offering and the other information appearing elsewhere in this prospectus and in the documents we incorporate by reference herein. This summary is not complete and does not contain all of the information that you should consider before investing in our securities. To fully understand this offering and its consequences, you should read this entire prospectus carefully, including the information set forth under the caption "Risk Factors" in this prospectus and under similar captions in the documents incorporated by reference herein, before making an investment decision.*

### **Our Company**

Pain Therapeutics develops proprietary drugs that offer significant benefits to patients and healthcare professionals. We generally focus our drug development efforts on disorders of the nervous system.

Our expertise consists of developing new drug candidates and guiding these drug candidates through various regulatory and development pathways in preparation for their potential commercialization. By necessity, the conduct of drug development is complex, lengthy, expensive and risky. The U.S. Food and Drug Administration (the "FDA") has not yet established the safety or efficacy of our drug candidates.

The lead candidate in our pipeline has historically been REMOXY ER, a proprietary abuse-deterrent, extended-release form of oxycodone to treat severe chronic pain. On August 3, 2018, we received a Complete Response Letter ("CRL") from the FDA for our New Drug Application ("NDA") for REMOXY, stating that the data submitted in the NDA does not support the conclusion that the benefits of REMOXY outweigh the risks. Based on data, we disagree with the FDA's recent actions regarding REMOXY and consequently, a formal dispute may arise between ourselves and the FDA regarding the CRL issued on August 3, 2018. The FDA has in-place a structured administrative process to resolve complex scientific/medical disputes, which is called a Formal Dispute Resolution ("FDR"). Pending further discussions with the FDA, we may choose to appeal the REMOXY CRL through an FDR or take other measures. REMOXY has been the subject of four CRLs to date. If we proceed with an FDR, or take other measures, there can be no assurance that such measures will satisfactorily resolve any scientific/medical disputes between ourselves and the FDA. If we do not prevail in an FDR or other means of appeal, or if we chose not to pursue an FDR or other means of appeal, we may cease development of REMOXY. On November 12, 2018, we announced that we have petitioned the FDA regarding the CRL for REMOXY issued on August 3, 2018. The FDA and the Company have agreed to meet in-person on January 31, 2019 to discuss this matter.

Following receipt of the CRL, we have initiated a strategic reorganization to align our resources on advancing our drug and diagnostic assets in Alzheimer's disease. PTI-125, the lead drug candidate in this portfolio, is a proprietary small molecule that has a unique mechanism of action for treating Alzheimer's disease. In 2017, PTI-125 completed a successful Phase I clinical-stage program, funded by a peer-reviewed research grant from the National Institutes of Health ("NIH"). Our other asset in Alzheimer's, PTI-125Dx, is a proprietary, blood-based diagnostic/biomarker to detect or confirm whether a person has Alzheimer's, potentially years before symptoms appear. An early diagnosis of Alzheimer's could allow treatment to start sooner, optimize treatment options for each individual and improve chances to slow or halt the disease. This early-stage program is substantially funded by a research grant award from the NIH.

We have yet to generate any revenues from product sales. We have an accumulated deficit of \$163.3 million at September 30, 2018. These losses have resulted principally from costs incurred in connection with research and development activities, salaries and other personnel-related costs and general corporate expenses, and we expect to continue to use significant cash resources in our operations for the next several years. Any product revenue will depend on our ability to receive regulatory approvals for, and successfully market, our drug candidates.

### **Equity Offering**

On August 17, 2018 (the "closing date"), we completed our offer and sale to certain accredited investors of (i) 8,860,778 shares of our common stock at a purchase price of \$1.15 per share, which were sold in a registered direct offering, and (ii) unregistered warrants to purchase up to an aggregate of 8,860,778 shares of our common stock at a purchase price of \$0.125 per warrant, which were sold in a concurrent private placement. These warrants had an initial exercise price of \$1.25 per share (subject to adjustment as set forth therein), were immediately exercisable and expire on February 17, 2021. At the closing of the offerings, we also issued unregistered warrants to purchase up to an aggregate of 265,823 shares of our common stock to the placement agent for the offerings or its designees, which have an initial exercise price of \$1.59 per share (subject to adjustment as set forth therein), were immediately exercisable and expire on February 17, 2021. All of the warrants described above contain certain ownership limitations that

may restrict their exercise, as described under the caption “Selling Stockholders” in this prospectus. In addition, all such warrants are exercisable on a cashless basis if at any time after the six-month anniversary of the closing date of the of the private placement financing there is no effective registration statement registering, or no current prospectus available for, the resale of the shares of common stock underlying the warrants by the holder. The warrants also provide that holders will have the right to participate in any rights offering or distribution of assets together with the holders of common stock on an as-exercised basis.

**Corporate Information**

We were incorporated in Delaware in May 1998. Our principal executive offices are located at 7801 N Capital of Texas Highway, Suite 260, Austin, TX, 78731 and our telephone number at that address is (512) 501-2444.

## THE OFFERING

Shares of common stock being offered by the selling stockholders:

Up to 9,126,601 shares of common stock issuable upon exercise of outstanding warrants. See “Selling Stockholders” beginning on page 9 of this prospectus.

Use of proceeds:

All proceeds from the sale of the shares of common stock under this prospectus will be for the account of the selling stockholders. We will not receive any proceeds from the sale of our shares of common stock offered pursuant to this prospectus. Any net proceeds received by us from the exercise of the warrants will be used for drug development and general corporate purposes and for other working capital and general corporate purposes. See the section entitled “Use of Proceeds” in this prospectus.

Nasdaq symbol:

PTIE

Listing:

Our common stock is listed and trades on The Nasdaq Capital Market. There is no established trading market for the warrants and we do not intend to list the warrants on any exchange or other trading or quotation system.

Risk factors:

Investing in our securities involves a high degree of risk. Before you decide to invest in our common stock, you should carefully read this prospectus in its entirety and carefully consider the risks and uncertainties described in “Risk Factors” beginning on page 7 of this prospectus and in our Annual Report on Form 10-K for the fiscal year ended December 31, 2017 and our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2018, June 30, 2018 and September 30, 2018, as such risk factors may be amended, updated or modified periodically in our reports filed with the Securities and Exchange Commission (the “SEC”), and the financial data and related notes and the reports incorporated by reference herein and therein.

## RISK FACTORS

Investing in shares of our common stock involves significant risks. Please see the risk factors under the heading “Risk Factors” in our most recent Annual Report on Form 10-K, as revised or supplemented by our Quarterly Reports on Form 10-Q filed with the SEC since the filing of our most recent Annual Report on Form 10-K, each of which are on file with the SEC and 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.



## USE OF PROCEEDS

We will not receive any proceeds from the sale of the shares of our common stock previously issued and issuable upon exercise of the warrants to purchase shares of our common stock by the selling stockholders from time to time pursuant to this prospectus. The proceeds from the offering are solely for the account of the selling stockholders. See "Selling Stockholders."

We will, however, receive proceeds from any cash exercise of the warrants. If the warrants were exercised in cash with respect to all of the 9,126,601 shares of common stock offered hereby, we would receive gross proceeds of approximately \$11.5 million. We cannot predict when or if the warrants will be exercised, and it is possible that the warrants may expire and never be exercised.

Any net proceeds received by us from the exercise of the warrants will be used for drug development and general corporate purposes and for other working capital and general corporate purposes. This represents our best estimate of the manner in which we will use any net proceeds we receive from this offering based on the status of our business, but we have not reserved or allocated amounts for specific purposes and we cannot specify with certainty how or when we would use any net proceeds. We will have broad discretion in the application of any net proceeds we receive from this offering, and we could use any such proceeds for purposes other than those currently contemplated. Until the funds are used, we intend to invest any net proceeds from this offering in interest-bearing money market or other accounts.

## SELLING STOCKHOLDERS

This prospectus covers an aggregate of up to 9,126,601 shares of our common stock that may be sold or otherwise disposed of by the selling stockholders identified herein. Such shares are issuable to the selling stockholders upon the exercise of certain outstanding common stock purchase warrants we issued and sold to the selling stockholders in a private placement transaction and as compensation for certain placement agent services in connection with such transaction and the related registered direct offering of shares of our common stock, as described above under “Prospectus Summary—Equity Offering.”

When we refer to the selling stockholders in this prospectus, we mean those persons listed in the table below, as well as the permitted transferees, pledgees, donees, assignees, successors and others who later come to hold any of the selling stockholders’ interests other than through a public sale.

The selling stockholders may from time to time offer and sell pursuant to this prospectus any or all of the shares of common stock set forth in the following table. There is no requirement for the selling stockholders to sell their shares, and we do not know when, or if, or in what amount the selling stockholders may offer the shares of common stock for sale pursuant to this prospectus.

The selling stockholders identified below may have sold, transferred or otherwise disposed of some or all of their shares since the date on which the information in the following table is presented in transactions exempt from or not subject to the registration requirements of the Securities Act. Information concerning the selling stockholders may change from time to time and, if necessary, we will supplement this prospectus accordingly. We are unable to confirm whether the selling stockholders will in fact sell any or all of their shares of common stock.

To our knowledge and except as noted below, none of the selling stockholders has, or within the past three years has had, any material relationships with us or any of our affiliates. Each selling stockholder who is also an affiliate of a broker dealer, as noted below, has represented that: (1) the selling stockholder purchased in the ordinary course of business; and (2) at the time of purchase of the securities being registered for resale, the selling stockholder had no agreements or understandings, directly or indirectly, with any person to distribute the securities.

Selling Stockholders <sup>(1)</sup>	Total Number of Shares Issued or Issuable <sup>(2)</sup>	Beneficial Ownership Before This Offering		Beneficial Ownership After This Offering	
		Number of Shares Owned <sup>(3)</sup>	Shares Offered Hereby Underlying Warrants	Number of Shares Owned <sup>(4)</sup>	Percentage <sup>(4)</sup>
District 2 Capital Fund LP <sup>(5)</sup>	235,286	235,286	235,286	0	0.00%
Bigger Capital Fund, LP <sup>(6)</sup>	156,870	156,870	156,870	0	0.00%
Armistice Capital Master Fund, Ltd. <sup>(7)</sup>	3,420,000	3,420,000	3,420,000	0	0.00%
21 April Fund, Ltd. † <sup>(8)</sup>	1,810,231	1,720,208	624,490	1,185,741	6.89%
21 April Fund, L.P. † <sup>(8)</sup>	472,683	472,683	159,824	312,859	1.82%
Hudson Bay Master Fund Ltd. <sup>(10)</sup>	1,176,471	1,176,471	1,176,471	0	0.00%
CVI Investments, Inc. † <sup>(11)</sup>	1,200,000	1,200,000	1,200,000	0	0.00%
Intracoastal Capital LLC <sup>(12)</sup>	1,814,892	1,720,208	907,446	907,446	5.27%
Lionhunter Capital† <sup>(13)</sup>	313,725	313,725	313,725	0	0.00%
Obed Cepeda and Antonia Dunbar <sup>(14)</sup>	78,431	78,431	78,431	0	0.00%
Caldwell Mill Opportunity Fund <sup>(15)</sup>	446,079	446,079	196,079	250,000	1.45%
Thomas A. Satterfield, Jr. <sup>(16)</sup>	203,431	203,431	78,431	125,000	0.73%
Tomsat Investment & Trading Co., Inc. <sup>(17)</sup>	217,647	217,647	117,647	100,000	0.58%
A.G. Family L.P. <sup>(18)</sup>	506,038	506,038	196,078	309,960	1.80%
Aileen Gibbons† <sup>(19)</sup>	50,506	50,506	50,506	0	0.00%
Charles Worthman† <sup>(20)</sup>	2,658	2,658	2,658	0	0.00%
Mark Viklund† <sup>(21)</sup>	7,975	7,975	7,975	0	0.00%
Michael Vasinkevich† <sup>(22)</sup>	171,456	171,456	171,456	0	0.00%
Noam Rubinstein† <sup>(23)</sup>	33,228	33,228	33,228	0	0.00%

\* Less than 1%

† The selling stockholder is a broker-dealer or an affiliate of a broker dealer.

- (1) The information in this table and the related notes is based upon information supplied by the selling stockholders, including reports and amendments thereto filed with the SEC on Schedules 13G.
- (2) Represents the total number of shares of our common stock issued or issuable to each selling shareholder as of the date of this prospectus, without regard to ownership limitations set forth in the applicable agreements or other documents relating to such shares and without regard to initial exercise dates of warrants, including (i) all of the shares offered hereby, and (ii) to our knowledge, all other securities held by each of the selling shareholders as of the date hereof.
- (3) Assumes that none of the warrants that are exercisable for the shares of our common stock offered hereby have been sold or otherwise transferred prior to the date of this prospectus in transactions exempt from the registration requirements of the Securities Act. All such warrants contain certain beneficial ownership limitations, which provide that a holder of the warrants will not have the right to exercise any portion of its warrants if the holder, together with its affiliates, would beneficially own in excess of (i) for the warrants held by Armistice Capital Master Fund, Ltd., 21 April Fund, Ltd., 21 April Fund, L.P., A.G. Family L.P., Caldwell Mill Opportunity Fund, Hudson Bay Master Fund Ltd., Intracoastal Capital, LLC, Thomas A. Satterfield, Jr., and Tomsat Investment & Trading Co., Inc., 9.99% of the number of shares of our common stock outstanding immediately after giving effect to such exercise, and (ii) for the warrants held by all other selling stockholders, 4.99% of the number of shares of our common stock outstanding immediately after giving effect to such exercise, provided that upon at least 61 days prior notice to us, a holder may increase or decrease such limitation up to a maximum of 9.99% of the number of shares of common stock outstanding. As a result, the number of shares of common stock reflected in this column as beneficially owned by each selling stockholder includes (a) any outstanding shares of our common stock held by such selling stockholder, and (b) if any, the number of shares of common stock subject to the warrants exercisable for the shares offered hereby or any other warrants that may be held by such selling

stockholder, in each case which such selling stockholder has the right to acquire as of December 18, 2018 or within 60 days thereafter and without it or any of its affiliates beneficially owning more than 4.99% or 9.99%, as applicable, of the number of outstanding shares of our common stock as of December 18, 2018.

- (4) The percentage of beneficial ownership is based on 17,219,300 shares outstanding as of December 17, 2018. The number of shares of common stock reflected in this column as beneficially owned by each selling stockholder assumes that (a) all shares to be sold in this offering are sold, and (b) after the date of this prospectus and prior to completion of this offering, none of the selling stockholders (i) acquires additional shares of our common stock or other securities or (ii) sells or otherwise disposes of shares of our common stock or other securities held by such selling stockholders as of the date hereof and not offered hereby. The number of shares of common stock reflected in this column as beneficially owned by each selling stockholder includes (a) any outstanding shares of our common stock held by such selling stockholder, and (b) if any, the number of shares of common stock subject to the warrants exercisable for the shares offered hereby or any other warrants that may be held by such selling stockholder, in each case which such selling stockholder has the right to acquire as of December 18, 2018 or within 60 days thereafter and without it or any of its affiliates beneficially owning more than 4.99% or 9.99%, as applicable, of the number of outstanding shares of our common stock as of December 18, 2018.
- (5) Represents 235,286 shares of our common stock issuable upon exercise of warrants to purchase shares of our common stock, which shares of common stock are being registered under this prospectus for resale. Michael Bigger is Managing Member of District 2 GP LLC, which is the General Partner of District 2 Capital Fund LP, and, in such capacity, may be deemed to have voting and dispositive power over the securities held for the account of District 2 Capital Fund LP. The address for District 2 Capital Fund LP is 175 W Carver, Huntington, NY 11743.

- (6) Represents 156,870 shares of our common stock issuable upon exercise of warrants to purchase shares of our common stock, which shares of common stock are being registered under this prospectus for resale. Michael Bigger is Managing Member of Bigger Capital, GP, LLC, which is the General Partner of Bigger Capital Fund, LP, and, in such capacity, may be deemed to have voting and dispositive power over the securities held for the account of Bigger Capital Fund, LP. The address for Bigger Capital Fund, LP is 159 Jennings Road, Cold Spring Harbor, NY 11724.
- (7) Represents 3,420,000 shares of our common stock issuable upon exercise of warrants to purchase shares of our common stock, which shares of common stock are being registered under this prospectus for resale. Mr. Steven Boyd is Managing Member of Armistice Capital, LLC, the Investment Manager of Armistice Capital Master Fund Ltd. and, in such capacity, may be deemed to have voting and dispositive power over the securities held for the account of Armistice Capital Master Fund Ltd. The address for Armistice Capital Master Fund Ltd. is c/o Armistice Capital, LLC, 510 Madison Avenue, 7th Floor, New York, NY 10022.
- (8) Includes (i) 624,490 shares of our common stock issuable upon exercise of warrants to purchase shares of our common stock, which shares of common stock are being registered under this prospectus for resale, as well as (ii) 1,185,741 shares of our common stock held by the selling stockholder, which are not being registered under this prospectus. The full legal name of the beneficial holder as beneficial owned by the selling stockholder is First Eagle Investment Management, LLC. Michael M. Kellen is the Portfolio Manager of First Eagle Investment Management, LLC which is the General Partner of 21 April Fund, Ltd. The address for First Eagle Investment Management, LLC is c/o Tim Connolly, Head of Operations, 1345 Avenue of the Americas, New York, NY 10105.
- (9) Includes (i) 159,824 shares of our common stock issuable upon exercise of warrants to purchase shares of our common stock, which shares of common stock are being registered under this prospectus for resale, as well as (ii) 312,859 shares of our common stock held by the selling stockholder, which are not being registered under this prospectus. The full legal name of the beneficial holder as beneficial owned by the selling stockholder is First Eagle Investment Management, LLC. Michael M. Kellen is the Portfolio Manager of First Eagle Investment Management, LLC which is the General Partner of 21 April Fund, L.P. The address for First Eagle Investment Management, LLC is c/o Tim Connolly, Head of Operations, 1345 Avenue of the Americas, New York, NY 10105.
- (10) Represents 1,176,471 shares of our common stock issuable upon exercise of warrants to purchase shares of our common stock, which shares of common stock are being registered under this prospectus for resale. Hudson Bay Capital Management LP, the investment manager of Hudson Bay Master Fund Ltd., has voting and investment power over these securities. Sander Gerber is the managing member of Hudson Bay Capital GP LLC, which is the general partner of Hudson Bay Capital Management LP. Hudson Bay Capital Management LP, the investment manager of Hudson Bay Master Fund Ltd., has voting and investment power over these securities. Sander Gerber is the managing member of Hudson Bay Capital GP LLC, which is the general partner of Hudson Bay Capital Management LP. Each of Hudson Bay Master Fund Ltd. and Sander Gerber disclaims beneficial ownership over these securities. Each of Hudson Bay Master Fund Ltd. and Sander Gerber disclaims beneficial ownership over these securities. The address for Hudson Bay Master Fund Ltd. is 777 Third Avenue, 30<sup>th</sup> Floor, New York, NY 10017.
- (11) Represents 1,200,000 shares of our common stock issuable upon exercise of warrants to purchase shares of our common stock, which shares of common stock are being registered under this prospectus for resale. Heights Capital Management, Inc. is the authorized agent of CVI Investments, Inc. has discretionary authority to vote and dispose of the shares held by CVI Investments, Inc. and may be deemed to be the beneficial owner of these shares. Martin Kobinger, in his capacity as Investment Manager of Heights Capital Management, Inc. may also be deemed to have investment discretion and voting power over the shares held by CVI Investments, Inc. Mr. Kobinger disclaims any such beneficial ownership of the shares. The address for CVI Investments, Inc. is c/o Heights Capital Management, 101 California Street, Suite 3250, San Francisco, CA 94111.
- (12) Includes (i) 907,446 shares of our common stock issuable upon exercise of warrants to purchase shares of our common stock, which shares of common stock are being registered under this prospectus for resale, as well as (ii) 907,446 shares of our common stock held by the selling stockholder, which are not being registered under this prospectus. Mitchell P. Kopin and Daniel B. Asher, each of whom is a manager of Intracoastal Capital LLC, have shared voting control and investment discretion over the securities reported herein that are held by Intracoastal Capital LLC. As a result, each of Mr. Kopin and Mr. Asher may be deemed to have beneficial ownership of the securities held by Intracoastal Capital LLC. The address of Intracoastal Capital LLC is 2211A Lakeside Drive, Bannockburn, IL 60015.
- (13) Represents 313,725 shares of our common stock issuable upon exercise of warrants to purchase shares of our common stock, which shares of common stock are being registered under this prospectus for resale. The address of Lionhunter Capital Management is 29 Broadway, 12<sup>th</sup> Floor, New York, NY 10006.
- (14) Represents 7,975 shares of our common stock issuable upon exercise of warrants to purchase shares of our common stock, which shares of common stock are being registered under this prospectus for resale. Mr. Viklund is an affiliate of H.C. Wainwright & Co., LLC ("H.C. Wainwright"). H.C. Wainwright is a broker-dealer and served as our exclusive placement agent and financial advisor with respect to the private placement financing we completed in August 17, 2018. H.C. Wainwright disclaims any beneficial ownership in such securities. Mr. Viklund's address is 430 Park Ave. 3<sup>rd</sup> Floor, New York, NY 10022.
- (15) Includes (i) 196,079 shares of our common stock issuable upon exercise of warrants to purchase shares of our common stock, which shares of common stock are being registered under this prospectus for resale, as well as (ii) 250,000 shares of our common stock held by the selling stockholder, which are not being registered under this prospectus. As reported in a Schedule 13G filed on January 12, 2018, Caldwell Mill Opportunity Fund is a fund managed by an entity in which Mr. Satterfield owns a 50% interest and for which he serves as Chief Investment Manager and, in such capacity, Mr. Satterfield may be deemed to have voting and dispositive power over the securities held for the account of Caldwell Mill Opportunity Fund. The address for Caldwell Mill Opportunity Fund is 2609 Caldwell Mill Lane, Mountain Brook, AL 35243.
- (16) Includes (i) 78,431 shares of our common stock issuable upon exercise of warrants to purchase shares of our common stock, which shares of common stock are being registered under this prospectus for resale, as well as (ii) 75,000 shares of our common stock held by Mr. Satterfield directly and 50,000 shares held jointly with Mr. Satterfield's spouse, which are not being registered under this prospectus. Mr. Satterfield's address is 2609 Caldwell Mill Lane, Mountain Brook, AL 35243.
- (17) Includes (i) 117,647 shares of our common stock issuable upon exercise of warrants to purchase shares of our common stock, which shares of common stock are being registered under this prospectus for resale, as well as (ii) 100,000 shares of our common stock held by the selling stockholder, which are not being registered under this prospectus. As reported in a Schedule 13G filed on January 12, 2018, Tomsat Investment & Trading Co., Inc. is a corporation wholly owned by Mr. Satterfield and of which he serves as President and, in such capacity, Mr. Satterfield may be deemed to have voting

and dispositive power over the securities held for the account of Tomsat Investment & Trading Co., Inc. The address for Tomsat Investment & Trading Co., Inc. is 2609 Caldwell Mill Lane, Mountain Brook, AL 35243.

- (18) Includes (i) 196,078 shares of our common stock issuable upon exercise of warrants to purchase shares of our common stock, which shares of common stock are being registered under this prospectus for resale, as well as (ii) 309,960 shares of our common stock held by the selling stockholder, which are not being registered under this prospectus. As reported in a Schedule 13G filed on January 12, 2018, Mr. Satterfield has limited powers of attorney for voting and disposition purposes with respect to A.G. Family L.P. and, in such capacity, Mr. Satterfield may be deemed to have voting and dispositive power over the securities held for the account of AG Family LP. The address for AG Family LP is 2609 Caldwell Mill Lane, Mountain Brook, AL 35243.
- (19) Represents 50,506 shares of our common stock issuable upon exercise of warrants to purchase shares of our common stock, which shares of common stock are being registered under this prospectus for resale. Ms. Gibbons is an affiliate of H.C. Wainwright. H.C. Wainwright is a broker-dealer and served as our exclusive placement agent and financial advisor with respect to the private placement financing we completed in August 17, 2018. H.C. Wainwright disclaims any beneficial ownership in such securities. The address for each of H.C. Wainwright and Ms. Gibbons is c/o H.C. Wainwright, 430 Park Avenue, 3<sup>rd</sup> Floor, New York, NY 10022.
- (20) Represents 2,658 shares of our common stock issuable upon exercise of warrants to purchase shares of our common stock, which shares of common stock are being registered under this prospectus for resale. Mr. Worthman is an affiliate of H.C. Wainwright. H.C. Wainwright is a broker-dealer and served as our exclusive placement agent and financial advisor with respect to the private placement financing we completed in August 17, 2018. H.C. Wainwright disclaims any beneficial ownership in such securities. The address for each of H.C. Wainwright and Mr. Worthman is c/o H.C. Wainwright, 430 Park Avenue, 3<sup>rd</sup> Floor, New York, NY 10022.

- (21) Represents 78,431 shares of our common stock issuable upon exercise of warrants to purchase shares of our common stock, which shares of common stock are being registered under this prospectus for resale. Mr. Cepeda's address is 23-29 32<sup>nd</sup> Street, Astoria, NY 11105.
- (22) Represents 171,456 shares of our common stock issuable upon exercise of warrants to purchase shares of our common stock, which shares of common stock are being registered under this prospectus for resale. Mr. Vasinkevich is an affiliate of H.C. Wainwright. H.C. Wainwright is a broker-dealer and served as our exclusive placement agent and financial advisor with respect to the private placement financing we completed in August 17, 2018. H.C. Wainwright disclaims any beneficial ownership in such securities. The address for each of H.C. Wainwright and Mr. Vasinkevich is c/o H.C. Wainwright, 430 Park Avenue, 3<sup>rd</sup> Floor, New York, NY 10022.
- (23) Represents 33,228 shares of our common stock issuable upon exercise of warrants to purchase shares of our common stock, which shares of common stock are being registered under this prospectus for resale. Mr. Rubinstein is an affiliate of H.C. Wainwright. H.C. Wainwright is a broker-dealer and served as our exclusive placement agent and financial advisor with respect to the private placement financing we completed in August 17, 2018. Wainwright disclaims any beneficial ownership in such securities. The address for each of H.C. Wainwright and Mr. Rubinstein is c/o H.C. Wainwright, 430 Park Avenue, 3<sup>rd</sup> Floor, New York, NY 10022.

### **Relationships with Certain Selling Stockholders**

#### *H.C. Wainwright & Co., LLC*

As compensation for its services in connection with our registered direct offering and concurrent private placement as described under "Prospectus Summary—Equity Offering," we paid H.C. Wainwright an aggregate cash fee equal to 7.0% of the gross proceeds received by the us from the sale of the shares, plus a non-accountable expense allowance of \$10,000, up to \$35,000 for fees and expenses of legal counsel and other out-of-pocket expenses actually incurred in connection with the offering and certain other reimbursement amounts payable. We also issued to H.C. Wainwright or its designees warrants to purchase up to 3.0% of the aggregate number of shares sold to investors in the registered direct offering. Specifically, we issued warrants to purchase up to 265,823 shares of our common stock to the following designees: Aileen Gibbons, Noam Rubinstein, Michael Vasinkevich, Mark Viklund and Charles Worthman (collectively, the "H.C. Wainwright Warrants"). The H.C. Wainwright Warrants have substantially the same terms as the warrants issued to the investors in the August 17, 2018 private placement financing, except that their exercise price is \$1.59 (equal to 125% of the offering price per share).

## PLAN OF DISTRIBUTION

Each selling stockholder of the shares of common stock and any of their pledgees, assignees and successors-in-interest may, from time to time, sell any or all of their shares of common stock included in the registration statement of which this prospectus is a part, on The Nasdaq Capital Market or any other stock exchange, market or trading facility on which the shares of common stock are traded or in private transactions. These sales may be 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. The selling stockholders may sell such shares 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.

A selling stockholder may use any one or more of the following methods when selling securities:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchases;
- 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;
- settlement of short sales;
- in transactions through broker-dealers that agree with the selling stockholder to sell a specified number of such shares at a stipulated price per share;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- a combination of any such methods of sale; or
- any other method permitted pursuant to applicable law.

The selling stockholders may also resell all or a portion of the shares of common stock under Rule 144 under the Securities Act or any other exemption from registration, if available, rather than under this prospectus.

Broker-dealers engaged by the selling stockholders may arrange for other broker-dealers to participate in sales. Broker-dealers may receive commissions or discounts from the selling stockholders (or, if any broker-dealer acts as agent for the purchaser of our common stock, from the purchaser) in amounts to be negotiated, but, except as set forth in a supplement to this prospectus, in the case of an agency transaction not in excess of a customary brokerage commission in compliance with FINRA Rule 2121.

In connection with the sale of the shares of common stock or interests therein, the selling stockholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the shares of common stock in the course of hedging the positions they assume. The selling stockholders may also sell common stock short and deliver these shares of common stock to close out their short positions, or loan or pledge the common stock to broker-dealers that in turn may sell these shares of common stock. The selling stockholders may also enter into option or other transactions with broker-dealers or other financial institutions or create one or more derivative securities which require the delivery to such broker-dealer or other financial institutions of shares of common stock offered by this prospectus, which shares of common stock such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

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 they default in the 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 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 transferees, donees, pledgees or other successors in interest will be the selling beneficial owners for purposes of this prospectus.

The selling stockholders and any broker-dealers or agents that are involved in selling the shares of common stock may be deemed to be "underwriters" within the meaning of the Securities Act in connection with such sales. In such event, any commissions received by such broker-dealers or agents and any profit on the resale of the shares of common stock purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act. Each selling stockholder has informed the Company that it does not have any written or oral agreement or understanding, directly or indirectly, with any person to distribute the shares of common stock and that there is no underwriter or coordinating broker acting in connection with the proposed sale of the shares of common stock offered hereby by the selling stockholders.

The Company is required to pay certain fees and expenses incurred by it incident to the registration of the shares of common stock. The Company has agreed to indemnify the selling stockholders against certain losses, claims, damages and liabilities, including liabilities under the Securities Act.

The common stock offered hereby will be sold only through registered or licensed brokers or dealers if required under applicable state securities laws. 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.

Under applicable rules and regulations under the Exchange Act, any person engaged in the distribution of the shares of common stock offered hereby may not simultaneously engage in market making activities with respect to the shares of common stock for the applicable restricted period, as defined by Regulation M, prior to the commencement of the distribution. In addition, the selling stockholders will be subject to applicable provisions of the Exchange Act and the rules and regulations thereunder, including Regulation M, which may limit the timing of purchases and sales of the shares of common stock by the selling stockholders or any other person.

We will pay all expenses of the registration of the shares of common stock, estimated to be approximately \$76,205 in total, including, without limitation, SEC filing fees and expenses of compliance with state securities or "blue sky" laws; provided, however, that a selling stockholder will pay all underwriting discounts and selling commissions, if any.

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.





## DESCRIPTION OF SECURITIES TO BE REGISTERED

The following is a summary of the material provisions of the common stock. For additional detail about our capital stock, please refer to our amended and restated certificate of incorporation, and bylaws, each as amended, copies of which are incorporated by reference into the registration statement to which this prospectus relates. The summary below is qualified in its entirety by reference to our amended and restated certificate of incorporation and bylaws and by provisions of applicable law.

### Common Stock

In this offering, the selling stockholders are offering up to 9,126,601 shares of our common stock they may acquire upon the exercise of outstanding warrants. The following summary of certain provisions of our shares of common stock does not purport to be complete. The summary below is qualified by provisions of applicable law.

### Voting and Dividend Rights

The holders of common stock are entitled to one vote per share on all matters to be voted upon by the stockholders. Subject to preferences that may be applicable to any outstanding preferred stock, the holders of common stock are entitled to receive ratably any dividends that may be declared from time to time by the board of directors out of funds legally available for that purpose. However, we are not currently paying any dividends.

### Liquidation Rights

In the event of our liquidation, dissolution or winding up, the holders of common stock are entitled to share ratably in all assets remaining after payment of liabilities, subject to prior distribution rights of preferred stock then outstanding. The common stock has no preemptive or conversion rights or other subscription rights. There are no redemption or sinking fund provisions applicable to the common stock. The outstanding shares of common stock are fully paid and non-assessable, and any shares of common stock to be issued upon an offering pursuant to this prospectus and the related prospectus will be fully paid and nonassessable upon issuance.

### Description of Outstanding Warrants to Purchase Shares of Common Stock pursuant to which the Offered Shares of Common Stock May Be Issued

The following description summarizes the material terms and provisions of the warrants. The warrants were immediately exercisable on August 17, 2018 and remain exercisable until the 2.5-year anniversary of their date of issuance, but not thereafter. Warrants to purchase up to 8,860,778 shares of our common stock are exercisable at an exercise price of \$1.25 per share and warrants to purchase up to 265,823 shares of our common stock are exercisable at an exercise price of \$1.59 per share, which exercise price in each case, along with the number of shares of common stock issuable upon the exercise of the warrants, will be subject to adjustment for stock splits, reverse splits, stock dividends, and similar capital transactions as described in the warrants. A holder of warrants will have the right to exercise the warrants on a “cashless” basis if at any time after the six-month anniversary of the closing date of the private placement financing there is no effective registration statement registering, or no current prospectus available for, the resale of the shares of common stock underlying the warrants by the holder. A holder of warrants will not have the right to exercise any portion of its warrants if the holder, together with its affiliates, would beneficially own in excess of either 4.99% or 9.99%, depending on the warrant agreement, of the number of our shares of our common stock outstanding immediately after giving effect to such exercise; provided, however, that upon at least 61 days prior notice to us, a holder may increase or decrease such limitation up to a maximum of 9.99% of the number of shares of common stock outstanding.

Holders of the warrants have the right to participate in any rights offering, dividend or distribution of assets together with the holders of our common stock on an as-exercised basis.

### Transfer Agent and Registrar

The transfer agent and registrar for our shares of common stock is Computershare Shareowner Services LLC. Its address is 330 N Brand Boulevard, Suite 701, Glendale, California, 91203-2389.

### Trading Market

Our shares of common stock are listed on The Nasdaq Capital Market under the symbol “PTIE.”

## LEGAL MATTERS

The validity of the common stock offered by this prospectus will be passed upon for us by Morrison & Foerster LLP, San Francisco, California.

## EXPERTS

Ernst & Young LLP, independent registered public accounting firm, has audited our financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2017, as set forth in their report, which is incorporated by reference in this prospectus and elsewhere in the registration statement. Our financial statements are incorporated by reference in reliance on Ernst & Young LLP's report, given on their authority as experts in accounting and auditing.

## WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement under the Securities Act that registers the securities offered hereby. The registration statement, including the exhibits and schedules attached thereto and the information incorporated by reference therein, contains additional relevant information about the securities and our company, which we are allowed to omit from this prospectus pursuant to the rules and regulations of the SEC. In addition, we file annual, quarterly and other reports, proxy statements and other information with the SEC. Our SEC filings are available to the public over the Internet at the SEC's website at [www.sec.gov](http://www.sec.gov). Our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, and Current Reports on Form 8-K, including any amendments to those reports, and other information that we file with or furnish to the SEC pursuant to Section 13(a) or 15(d) of the Exchange Act can also be accessed free of charge through the Internet. These filings will be available as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC.

We maintain a web site at [www.paintrials.com](http://www.paintrials.com). Information contained on our website is neither incorporated by reference into this prospectus nor a part hereof or any other document we file with or furnish to the SEC.

## INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The SEC allows us to incorporate by reference into this prospectus certain information contained in other documents and reports that we file with it, which means that we can disclose important information to you by referring you to such documents and reports. The information incorporated by reference is considered to be a part of this prospectus, and information that we file later with the SEC will automatically update and supersede information contained in this prospectus. We incorporate by reference the

documents listed below that we have previously filed with the SEC (excluding any portions of any Form 8-K that are not deemed “filed” pursuant to the General Instructions of Form 8-K):

- our Annual Report on Form 10-K for the fiscal year ended December 31, 2017, filed with the SEC on February 6, 2018;
- our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2018, June 30, 2018, and September 30, 2018 filed with the SEC on May 9, 2018, July 26, 2018, and October 30, 2018, respectively;
- our definitive Proxy Statement on Schedule 14A, filed with the SEC on March 27, 2018;
- our Current Reports on Form 8-K, filed with the SEC on February 9, 2018, March 16, 2018, May 1, 2018, May 11, 2018, July 9, 2018, August 6, 2018, August 16, 2018, August 20, 2018, October 3, 2018, and October 11, 2018; and
- the description of our common stock contained in our Registration Statement on Form 8-A as filed with the SEC on March 15, 2000, and any further amendment or report filed hereafter for the purpose of updating such description pursuant to Section 12(b) of the Exchange Act.

We also incorporate by reference into this prospectus additional documents that we may file with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date hereof but prior to the completion or termination of the offering, including all such documents we may file with the SEC after the date of the initial registration statement and prior to the effectiveness of the registration statement, but excluding any information deemed furnished and not filed with the SEC. Any statements contained in a previously filed document incorporated by reference into this prospectus is deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus, or in a subsequently filed document also incorporated by reference herein, modifies or supersedes that statement.

As explained above in “Where You Can Find More Information,” these incorporated documents (as well as other documents filed by us under the Exchange Act) are available at the SEC and may be accessed online via the Internet.

We will provide without charge to each person, including any beneficial owner, to whom a prospectus is delivered, upon written or oral request of that person, a copy of any or all of the documents we are incorporating by reference into this prospectus, other than exhibits to those documents unless such exhibits are specifically incorporated by reference into those documents. Such written requests should be addressed to:

Pain Therapeutics, Inc.  
7801 N Capital of Texas Highway, Suite 260  
Austin, TX 78731  
United States of America  
Attn: Investor Relations

The documents incorporated by reference may be accessed at our website at [www.paintrials.com](http://www.paintrials.com).



## **PAIN THERAPEUTICS, INC.**

**9,126,601 Shares of Common Stock  
Issuable upon Exercise of Outstanding Warrants**

**PROSPECTUS  
December , 2018**

### **PART II**

#### **INFORMATION NOT REQUIRED IN PROSPECTUS**

*Unless otherwise expressly stated or the context otherwise requires, references in this prospectus to (i) “Pain Therapeutics,” “the Company,” “we,” “us,” and “our” in this Part II refer to Pain Therapeutics, Inc., a Delaware corporation, and (ii) “common stock” refer to shares of the Company’s common stock, \$0.001 par value per share.*

#### **Item 13. Other Expenses of Issuance and Distribution.**

Set forth below is an estimate (except for registration fees, which are actual) of the approximate amount of each type of fees and expenses listed below that were paid or are payable by us in connection with the issuance and distribution of the shares of common stock to be registered by this registration statement. None of the expenses listed below are to be borne by any of the selling stockholders named in the prospectus that forms a part of this registration statement.

SEC registration fee	\$	1,205
Printing and engraving expenses	\$	0
Accounting fees and expenses	\$	20,000
Legal fees and expenses	\$	55,000
Miscellaneous	\$	0

**Item 14. Indemnification of Officers and Directors.**

Our amended and restated certificate of incorporation contains provisions that eliminate, to the maximum extent permitted by the General Corporation Law of the State of Delaware, the personal liability of directors and executive officers for monetary damages for breach of their fiduciary duties as a director or officer. Our amended and restated certificate of incorporation and bylaws provide that we shall indemnify our directors and executive officers and may indemnify our employees and other agents to the fullest extent permitted by the General Corporation Law of the State of Delaware.

Sections 145 and 102(b)(7) of the General Corporation Law of the State of Delaware provide that a corporation may indemnify any person made a party to an action by reason of the fact that he or she was a director, executive officer, employee or agent of the corporation or is or was serving at the request of the corporation against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by him or her in connection with such action if he or she acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, the best interests of the corporation and, with respect to any criminal action or proceeding, had no reasonable cause to believe his or her conduct was unlawful, except that, in the case of an action by or in right of the corporation, no indemnification may generally be made in respect of any claim as to which such person is adjudged to be liable to the corporation.

We have entered into indemnification agreements with our directors and executive officers, in addition to the indemnification provided for in our amended and restated certificate of incorporation and bylaws, and intend to enter into indemnification agreements with any new directors and executive officers in the future.

We have purchased and intend to maintain insurance on behalf of any person who is or was a director or officer of our company against any loss arising from any claim asserted against him or her and incurred by him or her in any such capacity, subject to certain exclusions.

See also the undertakings set out in our response to Item 17 herein.

**Item 15. Recent Sales of Unregistered Securities.**

On August 17, 2018, in a registered direct offering, the Company sold and issued an aggregate of 8,860,778 shares of the common stock at an offering price of \$1.15 per share pursuant to the terms of Securities Purchase Agreements (the "Agreements") dated August 15, 2018 between the Company and certain accredited investors. Pursuant to the terms of the Agreements, in a concurrent private placement, the Company issued to the investors in the registered direct offering warrants to purchase up to 8,860,778 shares of the common stock in the aggregate (the "Warrants"). The Warrants have an exercise price of \$1.25 per share, were exercisable as of the date of issuance and terminate 2.5 years following the date of issuance. On August 17, 2018, as compensation to H.C. Wainwright & Co., LLC ("H.C. Wainwright") for its services in connection with the registered direct offering and concurrent private placement, the Company issued warrants to purchase up to 265,823 shares of the common stock (the "H.C. Wainwright Warrants") in a private placement to H.C. Wainwright or its designees. The Wainwright Warrants have substantially the same terms as the Warrants, except that their exercise price is \$1.59 per share (equal to 125% of the registered direct offering price per share).

The Warrants, the H.C. Wainwright Warrants and the shares of common stock issuable upon exercise of the Warrants and the H.C. Wainwright Warrants were offered and sold without registration under the Securities Act of 1933, as amended (the "Securities Act"), pursuant to the exemption provided in Section 4(a)(2) under the Securities Act and Rule 506(b) promulgated thereunder as transactions not involving a public offering and similar exemptions under applicable state laws in reliance on the following facts: no general solicitation was used in other offer or sale of such securities; the recipients of the securities had adequate access to information about the Company, through pre-existing relationships or otherwise; and such securities were issued as restricted securities with restricted legends referring to the Securities Act.

**Item 16. Exhibits and Financial Statement Schedules.**

See the Exhibit Index immediately preceding the signature page hereto, which is incorporated in this Item 16 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 SEC 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 paragraphs (a)(1)(i) and (a)(1)(ii) of this section 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 SEC 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 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:
- (i) Each prospectus filed pursuant to Rule 424(b) as part of the registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. 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 first use, 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 date of first use.
  - (b) 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.
  - (c) 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 Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

**EXHIBIT INDEX**

The following exhibits are being filed with or incorporated by reference in this registration statement:

Exhibit No.	Description	Incorporated by Reference			Filed Herewith
		Form	Filing Date	Exhibit No.	
<a href="#">3.1</a>	<a href="#">Amended and Restated Certificate of Incorporation.</a>	10-Q	7/29/2005	3.1	
<a href="#">3.2</a>	<a href="#">Amended and Restated Bylaws.</a>	10-Q	4/24/2013	3.2	
<a href="#">3.3</a>	<a href="#">Amendment to the Amended and Restated Certificate of Incorporation.</a>	8-K	5/8/2017	3.1	
<a href="#">4.1</a>	<a href="#">Specimen Common Stock Certificate.</a>	10-Q	7/29/2005	4.1	
<a href="#">5.1</a>	<a href="#">Opinion of Morrison &amp; Foerster LLP.</a>				X
<a href="#">10.1</a>	* <a href="#">Form of Indemnification Agreement between Pain Therapeutics and each of its directors and officers.</a>	S-1	3/14/2000	10.1	
<a href="#">10.3</a>	* <a href="#">Employment Agreement dated October 23, 2001, between Registrant and Nadav Friedmann, PhD. M.D.</a>	10-K	3/22/2002	10.5	
<a href="#">10.4</a>	+ <a href="#">Development and License Agreement dated December 19, 2002 between Registrant and DURECT Corporation and Southern Biosystems, Inc.</a>	10-K	2/24/2006	10.10	
<a href="#">10.5</a>	+ <a href="#">Amendment dated December 15, 2005 to Development and License Agreement dated December 19, 2002 between Registrant and DURECT Corporation and Southern Biosystems, Inc.</a>	10-K	2/24/2006	10.11	
<a href="#">10.11</a>	* <a href="#">Employment Agreement dated July 1, 1998 and amended December 17, 2008 between Registrant and Remi Barbier.</a>	10-K	2/13/2009	10.12	
<a href="#">10.12</a>	* <a href="#">2000 Employee Stock Purchase Plan, as amended and restated.</a>	10-Q	7/29/2010	10.1	
<a href="#">10.13</a>	<a href="#">Lease agreement, dated as of February 14, 2011 between Registrant and StoneCliff Office, L.P.</a>	10-Q	4/27/2011	10.1	
<a href="#">10.14</a>	* <a href="#">Amendment Number 1 to the 2008 Equity Incentive Plan.</a>	10-Q	8/1/2013	10.1	
<a href="#">10.15</a>	* <a href="#">Amendment No. 2 to Employment Agreement between Registrant and Remi Barbier.</a>	10-Q	8/1/2013	10.2	
<a href="#">10.16</a>	<a href="#">Second Amendment to Lease Agreement, dated as of April 8, 2014 between Registrant and StoneCliff Office, L.P.</a>	10-Q	8/6/2014	10.1	
<a href="#">10.17</a>	<a href="#">Third Amendment to Lease Agreement, dated as of November 3, 2017 between Registrant US REIF Eurus Austin, LLC dba StoneCliff Building as successor in interest to StoneCliff Office, L.P.</a>	10-K	2/6/2018	10.17	
<a href="#">10.18</a>	* <a href="#">Employment Agreement, executed on October 9, 2018, by and between Pain Therapeutics, Inc. and Eric Schoen.</a>	8-K	10/11/2018	10.1	
<a href="#">23.1</a>	<a href="#">Consent of Ernst &amp; Young LLP, Independent Registered Public Accounting Firm.</a>				X
<a href="#">23.2</a>	<a href="#">Consent of Morrison &amp; Foerster LLP (included in Exhibit 5.1).</a>				X
<a href="#">24.1</a>	<a href="#">Power of Attorney (included on signature page).</a>				X

\* Management contract, compensatory plan or arrangement.  
 + Portions of this Exhibit are subject to a confidential treatment order.

## 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-1 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Austin, Texas, on December 18, 2018.

### PAIN THERAPEUTICS, INC.

Date: December 18, 2018

By: /s/ Remi Barbier  
Remi Barbier  
President, Chief Executive Officer and Chairman of the  
Board of Directors

### POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Remi Barbier and Eric Schoen, and each of them, as his or her true and lawful attorneys-in-fact and agents, each with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities to sign the Registration Statement filed herewith and any or all amendments to said Registration Statement (including post-effective amendments and registration statements filed pursuant to Rule 462(b) under the Securities Act of 1933, as amended, and otherwise), and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the foregoing, as full to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or his or her substitute, may lawfully do or cause to be done by virtue thereof.

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>SIGNATURE</u>	<u>TITLE</u>	<u>DATE</u>
<u>/s/ Remi Barbier</u> Remi Barbier	President, Chief Executive Officer and Chairman of the Board of Directors (Principal Executive Officer)	December 18, 2018
<u>/s/ Eric Schoen</u> Eric Schoen	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	December 18, 2018
<u>/s/ Nadav Friedmann, Ph.D., M.D.</u> Nadav Friedmann, Ph.D., M.D.	Chief Operating and Medical Officer and Director	December 18, 2018
<u>/s/ Robert Z. Gussin, Ph.D.</u> Robert Z. Gussin, Ph.D.	President and Director	December 18, 2018
<u>/s/ Michael J. O'Donnell, Esq.</u> Michael J. O'Donnell, Esq.	Director	December 18, 2018
<u>/s/ Saira Ramasastry</u> Saira Ramasastry	Director	December 18, 2018
<u>/s/ Sanford R. Robertson</u> Sanford R. Robertson	Director	December 18, 2018
<u>/s/ Patrick Scannon, M.D., Ph.D.</u> Patrick Scannon, M.D., Ph.D.	Director	December 18, 2018

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DENVER, HONG KONG, LONDON,  
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NORTHERN VIRGINIA, PALO ALTO,  
SAN DIEGO, SAN FRANCISCO, SHANGHAI,  
SINGAPORE, TOKYO, WASHINGTON, D.C.

December 18, 2018

Pain Therapeutics, Inc.  
7801 N Capital of Texas Highway, Suite 260  
Austin, Texas 78731

Ladies and Gentlemen:

We are acting as counsel to Pain Therapeutics, Inc., a Delaware corporation (the "**Company**"), in connection with the resale from time to time by the selling stockholders named in the prospectus included as part of the Registration Statement (as defined below), any pre-effective amendment to the Registration Statement and any prospectus supplements to the final prospectus included as part of the Registration Statement, of up to 9,126,601 shares (the "**Shares**") of the Company's common stock, par value \$0.001 per share (the "**Common Stock**"), that are issuable upon the exercise of outstanding warrants ("**Warrants**") to purchase Common Stock. This opinion is furnished to you in connection with the registration statement on Form S-1, initially filed by the Company with the Securities and Exchange Commission (the "**Commission**") on December 18, 2018 (the "**Registration Statement**"), in accordance with the provisions of the Securities Act of 1933, as amended, and the rules and regulations of the Commission promulgated thereunder (the "**Securities Act**").

In connection with this opinion, we have examined such corporate records, documents, instruments, certificates of public officials and of the Company and such questions of law as we have deemed necessary for the purpose of rendering the opinions set forth herein. We also have examined the Registration Statement. In such examination, we have assumed the genuineness of all signatures and the authenticity of all items submitted to us as originals and the conformity with originals of all items submitted to us as copies.

Based upon and subject to the foregoing, we are of the opinion that the Shares, when issued in accordance with the terms of the Warrants, will be duly authorized, validly issued, 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 caption "Legal Matters" in the prospectus which forms part of the Registration Statement. In giving such permission, we do not admit hereby that we come within the category of persons whose consent is required under Section 7 of the Securities Act. This opinion is expressed as of the date hereof, and we disclaim any undertaking to advise you of any subsequent changes of the facts stated or assumed herein or of any subsequent changes in applicable law.

Very truly yours,

/s/ Morrison &amp; Foerster LLP



**Consent of Independent Registered Public Accounting Firm**

We consent to the reference to our firm under the caption "Experts" and to the use of our report dated February 6, 2018, in the Registration Statement (Form S-1) and related Prospectus of Pain Therapeutics, Inc. for the registration of 9,126,601 shares of its common stock.

/s/ Ernst & Young LLP

Austin, Texas  
December 18, 2018

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