

PAIN THERAPEUTICS, INC.

**FORM 10-K
INDEX**

| | Page |
|---|-------------|
| PART I | |
| Item 1. <u>Business</u> | 4 |
| Item 1A. <u>Risk Factors</u> | 14 |
| Item 1B. <u>Unresolved Staff Comments</u> | 33 |
| Item 2. <u>Properties</u> | 33 |
| Item 3. <u>Legal Proceedings</u> | 33 |
| Item 4. <u>Mine Safety Disclosures</u> | 34 |
| PART II | |
| Item 5. <u>Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities</u> | 34 |
| Item 6. <u>Selected Financial Data</u> | 36 |
| Item 7. <u>Management's Discussion and Analysis of Financial Condition and Results of Operations</u> | 37 |
| Item 7A. <u>Quantitative and Qualitative Disclosures About Market Risk</u> | 42 |
| Item 8. <u>Financial Statements and Supplementary Data</u> | 42 |
| Item 9. <u>Changes in and Disagreements with Accountants on Accounting and Financial Disclosure</u> | 58 |
| Item 9A. <u>Controls and Procedures</u> | 58 |
| Item 9B. <u>Other Information</u> | 60 |
| PART III | |
| Item 10. <u>Directors and Executive Officers and Corporate Governance</u> | 60 |
| Item 11. <u>Executive Compensation</u> | 60 |
| Item 12. <u>Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters</u> | 60 |
| Item 13. <u>Certain Relationships and Related Transactions and Director Independence</u> | 61 |
| Item 14. <u>Principal Accountant Fees and Services</u> | 61 |
| PART IV | |
| Item 15. <u>Exhibits and Financial Statement Schedules</u> | 62 |

PART I

This annual report contains certain statements that are considered forward-looking statements within the meaning of the Private Securities Reform Act of 1995. We intend that such statements be protected by the safe harbor created thereby. 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:

- The timing and topics of discussions with the U.S. Food and Drug Administration, or FDA, regarding the New Drug Application, or NDA, for REMOXY ER (oxycodone) capsules CII, or REMOXY;
- the timing of the planned resubmission of the NDA for REMOXY;
- development activities to potentially support obtaining approval of REMOXY by the FDA;
- our plans to rely on third parties, including Durect Corporation, or Durect, and Noramco, Inc., or Noramco, to supply us with excipients and active pharmaceutical ingredients and to manufacture REMOXY;
- discussions with potential strategic partners for the development and commercialization of REMOXY;
- the outcome of research and development activities, including, without limitation, development activities for FENROCK™ and potential formulation of additional dosage forms of our drug candidates;
- the potential benefits of our drug candidates;
- the utility of protection of our intellectual property;
- expected future sources of revenue and capital and increasing cash needs;
- potential competitors or competitive products;
- 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, interest income decreasing or fluctuations in our operating results;
- operating losses and anticipated operating and capital expenditures;
- expected uses of capital resources;
- 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 twelve 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:

- the quantity, quality or sufficiency of the data, materials and information transferred to us by Pfizer, Inc., or Pfizer, regarding the REMOXY development program;
- difficulties or delays in the preparation and filing of the NDA for REMOXY and in potentially obtaining regulatory approval of the NDA for REMOXY, including the potential for requests by the FDA for additional data which may require an extended period of time to obtain and submit;
- having or obtaining sufficient resources for the successful development and commercialization of REMOXY;
- discussions with potential strategic partners for the development and commercialization of REMOXY;
- the successful development of other drug candidates, independently as well as pursuant to our other collaboration agreements, and the continuation of such agreements;
- difficulties or delays in development, testing, clinical trials (including patient enrollment), regulatory authorization or approval, production and commercialization of our drug candidates;

- unexpected adverse side effects or inadequate therapeutic efficacy of our drug 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;
- 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.

In addition, such statements are subject to the risks and uncertainties discussed in the "Risk Factors" section and elsewhere in this document.

Item 1. Business

Overview

Pain Therapeutics, Inc. develops proprietary drugs that offer significant improvements to patients and healthcare professionals. We generally focus our drug development efforts on disorders of the nervous system, such as chronic pain.

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

For over a decade, we have pioneered technology, tools and techniques that enable the development of Abuse-Deterrent Formulations, or ADFs. ADFs are intended to make opioid drugs difficult to abuse yet provide steady pain relief when used appropriately by patients. ADFs are intended to help in the fight against prescription drug abuse.

Opioid drugs, such as oxycodone, are an important treatment option for patients with severe chronic pain. However, misuse, abuse and diversion of these prescription drugs remains a serious, persistent problem. Nearly 19,000 people died from opioid overdose in 2014, according to the National Institute of Health, or NIH, National Institute on Drug Abuse.

Our lead drug candidate is called REMOXY. REMOXY is a proprietary, abuse-deterrent, oral formulation of oxycodone (CII). We developed REMOXY to make oxycodone difficult to abuse yet provide 12 hours of steady pain relief when used appropriately by patients.

In particular, REMOXY's thick, sticky, high viscosity formulation may deter unapproved routes of drug administration, such as injection, snorting or smoking. REMOXY targets the multi-billion dollar marketplace for long-acting formulations of oxycodone. We own exclusive, worldwide rights to REMOXY.

In March 2016, we resubmitted to the FDA the NDA for REMOXY. In April 2016, the FDA determined that the NDA for REMOXY was sufficiently complete to permit a substantive review. On May 19, 2016, we announced that the FDA planned to hold an Advisory Committee meeting to review the NDA for REMOXY. On July 1, 2016, we announced that the FDA had determined that an Advisory Committee meeting for REMOXY was unnecessary and would not be held.

In September 2016, we received a Complete Response Letter, or CRL from the FDA on the resubmission of NDA for REMOXY. The CRL informed us that the NDA for REMOXY could not be approved in its present form and specifies additional actions and data that are needed for drug approval. The CRL focuses on the abuse-deterrent properties of REMOXY and proposed drug labeling. The CRL makes no mention of clinical safety, drug efficacy, manufacturing, stability, bioequivalence or any other issues from a prior Complete Response Letter.

The CRL focuses on the actions and studies that are needed in order to obtain approval of REMOXY. In conducting the following studies, we expect to generally compare REMOXY with one or more commercially available oxycodone ER drug product:

- To support a potential drug label claim against abuse by injection: Repeat an injectability/syringeability study using thin films of drug, smaller volumes of solvents, additional mixed solvents and alternative extraction methods and syringe filter.
- To support a potential drug label claim against abuse by snorting: Conduct an intranasal abuse potential study in human volunteers.

In addition, we had proposed in the REMOXY a label claim against abuse by chewing. Our proposal was based on clinical results of an oral human abuse potential study that met all four co-primary endpoints with statistical significance and that also met several, but not all, secondary endpoints. The CRL asks us to submit a revised proposed label to indicate that the results of this study do not support a label claim against abuse by chewing.

On February 13, 2017, we met with the FDA regarding REMOXY. During this meeting, we reached agreement with the FDA on a roadmap to resubmit the NDA for REMOXY. We expect to disclose details of this meeting, including timelines and additional data to be developed, after minutes of the meeting are issued.

Use and Abuse of Opioid Drugs

Opioid drugs are primarily used to relieve pain. They are among the world's oldest known drugs. The term 'opioid' refers to an entire class of analgesic substances that are derived from the opium poppy plant. Drugs that fall within this class include oxycodone, hydrocodone, fentanyl, heroin, morphine and many other related substances.

In recent decades, oxycodone, a semi-synthetic opium derivative, has become a standard of care to treat severe chronic pain. Oxycodone is in Schedule II of the federal Controlled Substances Act of 1970, which means it has accepted medical use with severe restrictions, a high potential for abuse and regulations around its manufacture, possession, storage, use and distribution.

Oxycodone can provide significant therapeutic benefits for patients in pain when used as prescribed. In recent years, patients with severe chronic pain have benefited from oxycodone in long-acting formulations. Long-acting formulations contain a very high dose of oxycodone that is intended to release evenly over 12 hours. Long-acting oxycodone offers the convenience of less-frequent dosing intervals and improved compliance, a potential win-win for prescribers and for patients with severe chronic pain.

However, the emergence of long-acting oxycodone has also corresponded with a dramatic increase in opioid drug abuse. Drug abuse is the use of opioid drugs for reasons other than what the drug was prescribed for, and often via unapproved routes of administration, such as injection, snorting or smoking. Opioids such as oxycodone are primarily abused due to their ability to produce a strong, if fleeting, euphoric high.

Drug abusers have learned effective ways to tamper with, and defeat, long-acting oxycodone formulations. Defeating the long-acting properties of an oxycodone formulation can be as easy as crushing or grinding tablets, then swallowing, injecting, snorting or smoking the crushed substance. This releases high levels of oxycodone faster than intended (called "dose-dumping"), resulting in an immediate and powerful euphoric high, as compared to swallowing an intact tablet as prescribed.

Opioid abuse is dangerous. Opioid abuse can lead to drug-seeking behavior, tolerance and physical or psychological dependence. Even a single episode of opioid abuse can also lead to overdose, respiratory depression or death.

The Role of Abuse-deterrent Formulations

The FDA and other important policy makers have developed a multi-pronged approach aimed at combating opioid misuse, abuse and addiction. One targeted effort has been to encourage the pharmaceutical industry to develop ADFs. In April 2015, the FDA issued a final guidance to assist the pharmaceutical industry in developing ADF opioid drug products.

ADFs attempt to raise the bar on opioid abuse by making it more difficult, longer or aversive to tamper with a long-acting formulation, while recognizing that no drug or drug formulation can be made abuse-proof. In particular, an ADF drug can still be misused and result in overdose simply by ingesting the drug in higher than recommended doses. ADFs are not designed to prevent opioid-induced euphoria. ADF technology aims to decrease the likelihood that a long-acting opioid formulation will dose-dump under conditions of abuse or accidental misuse. By mitigating dose-dumping, the likelihood of overdose and death associated may decrease.

First-generation ADFs were introduced into the marketplace in 2010. However, the relative weakness of first generation ADFs means opioid abuse continues to be a serious public health issue. In 2015, over 33,000 people died in the U.S. from opioid overdose, increasing from over 28,000 in 2014, according to the Centers for Disease Control Prevention. According to the FDA, “for each death [due to narcotic pain relievers], there are an additional ten treatment admissions, 32 emergency department visits and 825 nonmedical users of these drugs.” (Source: *FDA’s Efforts to Address the Misuse and Abuse of Opioids*, 2/6/2013).

As a pioneer in the design and development of ADFs, we believe a robust design for a novel ADF relies on four basic (and mostly incompatible) objectives: i) safety and clinical efficacy when used as prescribed; ii) abuse-deterrent when abused; (iii) ease of large scale manufacturing; and (iv) novel, non-infringing intellectual property. Many ADF programs may achieve three of these four objectives but the practical reality is that few ADFs achieve all four. We believe this is reflected in the industry’s relatively high failure rate with regards to ADFs developments for long-acting opioid formulations.

About REMOXY ER

Our lead drug candidate is called REMOXY. REMOXY is a proprietary, abuse-deterrent, oral formulation of oxycodone (CII). We developed REMOXY to make oxycodone difficult to abuse yet provide 12 hours of steady pain relief when used appropriately by patients.

REMOXY is intended to meet the needs of healthcare professionals who appropriately prescribe opioid drugs and who seek to minimize the risks of drug diversion, abuse or accidental patient misuse. In particular, REMOXY’s thick, sticky, high viscosity formulation may deter unapproved routes of drug administration.

We initiated the development of REMOXY over a decade ago, before any formal guidance was in place with regards to regulatory pathways for ADFs. As a result of our pioneering efforts with REMOXY, we have developed a foundation of practical experience with regard to regulatory and development pathways for ADFs.

The following is a top-line chronology of the development of REMOXY:

- In 2003, we filed an Investigational New Drug application, or IND, for REMOXY with the FDA.
- In 2005, we and King Pharmaceuticals, Inc., or King, entered into an exclusive agreement to develop and commercialize REMOXY.
- In 2008, we filed an NDA for REMOXY with the FDA. Later that year, we received a Complete Response Letter over manufacturing issues (specifically, *in vitro* drug stability). However, the Complete Response Letter did not question REMOXY’s safety, clinical efficacy, abuse-deterrent properties or use of the reference listed drug.
- In 2009, King assumed sole control and responsibility for REMOXY.
- In 2010, King resubmitted the REMOXY NDA with the FDA. In early 2011, Pfizer acquired King. References to Pfizer include references to Pfizer’s subsidiary King.
- In 2011, Pfizer received a Complete Response Letter on the REMOXY NDA filed by King. Once again, FDA cited manufacturing issues (specifically, *in vitro* drug stability). Once again, the Complete Response Letter did not question REMOXY’s safety, clinical efficacy, abuse-deterrent properties or use of the reference listed drug.
- From 2011-2014, Pfizer conducted fundamental investigations of the REMOXY formulation and its manufacture. As a result, Pfizer modified the REMOXY formulation and conducted successful studies to establish bioequivalence of the current formulation to the original formulation of REMOXY, to generate additional abuse-deterrent data and to provide manufacturing stability.
- In 2014, Pfizer provided us with written notice of termination of its development of REMOXY. We and Pfizer agreed on an orderly transfer of all rights, data, IP, etc.

- In 2015, we and Pfizer concluded the transfer of the REMOXY program. We believe Pfizer has transferred to us its data, materials, capital equipment and other assets related to REMOXY.
- In 2015, we generated additional abuse-deterrent data, continued an on-going stability study and made other preparations necessary to resubmit the NDA for REMOXY with the FDA.
- In March 2016, we resubmitted the NDA for REMOXY with the FDA.
- In September 2016, we received a CRL from the FDA regarding the NDA for REMOXY.
- In February 2017, we met with the FDA regarding REMOXY.

REMOXY Commercial Opportunity

The global opioid market has been estimated by third-parties to be valued at nearly \$35 billion in 2015. By geography, North America dominates the market, with about 65% market share, or about \$22 billion. REMOXY targets the multi-billion dollar marketplace for long-acting oxycodone. Despite these impressive commercial figures, we believe opioid abuse remains a serious, persistent problem for physicians and patients alike.

We own exclusive, worldwide rights to REMOXY. If approved and granted appropriate label claims, we believe REMOXY may have potential to distinguish itself from competitors with:

- ✓ best-in-class abuse-deterrent properties;
- ✓ true twice-daily dosing;
- ✓ minimal food effect;
- ✓ lack of generic drug substitution; and
- ✓ over 15 years of intellectual property protection.

Currently we have no capability to launch or to commercialize our drug products. We continue to review potential launch and commercialization strategies for REMOXY. Options include a potential strategic transaction around all of our drug candidates; a commercial collaboration for REMOXY; or establishing commercial capabilities in-house to launch REMOXY on our own.

About FENROCK

FENROCK is a trade name for our proprietary, abuse-deterrent pain patch. FENROCK's active drug ingredient is fentanyl (CII), a highly addictive opioid drug that is up to 50 times more powerful than morphine.

Currently marketed transdermal fentanyl patches are typically used to manage severe chronic pain, but are also easily abused and have been blamed for thousands of deaths across the U.S. Fentanyl abuse is dangerous. A single episode of fentanyl abuse can lead to overdose, respiratory depression or death.

FENROCK is an early-stage drug candidate. Our goal with FENROCK is to make the fentanyl pain patch difficult to abuse yet provide 72 hours of steady pain relief when used appropriately by patients. We developed FENROCK in-house. We are currently working with outside collaborators on the development of a final formulation of FENROCK. We believe a final formulation may enable us to file an IND with the FDA.

We own exclusive, worldwide rights to FENROCK without royalty or milestone obligations to any third party.

About PTI-125

This small molecule drug candidate offers a promising new approach to treat Alzheimer's Disease and other neurological disorders. PTI-125, an oral drug, was designed in-house and characterized by outside collaborators. The science that underlies PTI-125 was initially published in *The Journal of Neuroscience* (2012-32:9773-9784).

The NIH awarded us a \$1.7 million innovation grant in September 2015. This grant was awarded to us following an in-depth evaluation of PTI-125 for scientific and technical merit by academic, clinical and industry experts in neurological disorders. The NIH grant award enables us to fund and conduct pre-clinical studies around PTI-125. We recently completed activities under the grant. We expect results of these on-going studies, combined with other preclinical activities may enable

us to file an IND with the FDA. We have received all \$1.7 million of the grant from the NIH. The grant is subject to final reporting requirements in 2017.

We own exclusive, worldwide rights to PTI-125 without royalty or milestone obligations to any third party.

Strategy

We began developing ADFs over a decade ago. Since then our vision has remained the same: to develop novel ADF technology for opioid drugs. We submitted our first IND for an ADF opioid drug candidate in 2003. At that time, the FDA had no formal guidelines for ADFs, the public was generally unaware of opioid abuse and many prescribing physicians underappreciated the abuse potential of opioid drugs. Today, there is widespread public awareness of opioid drug abuse and FDA has issued formal regulatory guidance for the development of ADFs.

Our corporate strategy has changed little over the years: to spend carefully but to keep innovation at the top of our agenda. Elements of our corporate strategy include:

Focus on Clinical Development Stage Products. We believe this focus will enable us to generate product revenues earlier than if we were focused on early-stage research and discovery activities.

Retain Significant Rights to Our Drugs. We currently retain worldwide commercialization rights to all of our technology and drug candidates in all markets and indications, including REMOXY. In general, we intend to independently develop our drug candidates through late-stage clinical trials.

Outsource Key Functions. We intend to continue to outsource preclinical studies, clinical trials and formulation and manufacturing activities. We believe outsourcing permits significant time savings and allows for more efficient deployment of our resources.

We also conduct basic research in collaboration with academic and other partners. Our research and development expenses were \$7.3 million in 2014, \$9.1 million in 2015 and \$9.2 million in 2016.

Our Intellectual Property

We own or license a number of U.S. and foreign patents, patent applications and rights to patents covering our products and technology. We consider the overall protection of our patents and other intellectual property rights to be of material value and act to protect these rights from infringement.

We seek to protect our technology by, among other methods, filing and prosecuting U.S. and foreign patents and patent applications with respect to our technology and products and their uses. The focus of our patent strategy is to secure and maintain intellectual property rights to technology for the following categories of our business:

- the technology that forms the basis of REMOXY and our other abuse-deterrent drug candidates;
- the technologies related to our pre-clinical product candidates; and
- the manufacture and use of our drug candidates.

However, we may rely on certain proprietary technologies and know-how that are not patentable. We protect our proprietary information, in part, by the use of confidentiality agreements with our employees, consultants, and certain of our contractors.

We plan to prosecute and defend our patent applications, allowed patents, issued patents and proprietary information. Our competitive position and potential future revenues will depend in large part upon our ability to protect our intellectual property from challenges and to enforce our patent rights against potential infringements.

Patents expire, on a country by country basis, at various times depending on various factors, including the filing date of corresponding patent applications. Our patents and the patents we license from third parties include the following issued U.S.

Patents: 8,168,217; 8,153,152; 8,147,870; 8,133,507; 8,354,124; 8,415,401; 8,420,120; 8,974,821; 8,945,614; 8,951,556; 9,233,160; 9,517,271; 9,555,113; 9,339,463 and 9,572,885.

Our issued U.S. patent for REMOXY with the longest patent term extends to March 2034. Outside the U.S., our granted patent with the longest patent term for REMOXY extends to 2028. Patents may have their term extended for various reasons including the grant of patent term adjustments, patent term extensions, or supplemental protection certificates, or may have their term shortened for various reasons including by terminal disclaimers. Certain U.S. patent applications and patent applications outside the U.S. are pending.

In addition, we use a unique and complex process to manufacture REMOXY. We also protect as trade secrets the significant pharmaceutical know-how and detailed knowledge of a complex supply chain to manufacture REMOXY.

REMOXY, REMOXY ER and FENROCK are trademarks of Pain Therapeutics, Inc.

Formulation Agreement with Durect Corporation

We have an exclusive, worldwide Development and License Agreement, or the Durect Agreement, with Durect to use a patented controlled-release technology that forms the basis for REMOXY.

Under the terms of the Durect Agreement, we are solely responsible for clinical development, Durect is responsible for furnishing suitable laboratory facilities, equipment and personnel during pre-clinical phases of development and we and Durect are jointly responsible for certain pre-clinical activities. We reimburse Durect's expenses and have made milestone payments based on the achievement of certain clinical or regulatory milestones. We paid Durect approximately \$40.3 million from the inception of the Durect Agreement to December 31, 2016. We could pay another \$1.5 million milestone payment to Durect under the Durect Agreement.

We are obligated to pay Durect royalties on commercial sales of REMOXY. These royalties range from 6.0% to 11.5% of net sales, depending on the volume of sales of licensed products in a given calendar year.

The Durect Agreement terminates on a country-by-country basis upon the later of the expiration of the last to expire of the patents licensed under such agreement or a certain number of years following first commercial sale in such country. Currently, the last to expire patent covered by such agreement expires in 2034. However, such date may be extended by the issuance of any additional patents pursuant to pending patent applications. We can terminate the Durect Agreement with notice to Durect, and we and Durect can terminate such agreement under certain circumstances, including material breach and insolvency.

In December 2016, we removed the opioid drugs hydromorphone and oxymorphone (and only hydromorphone and oxymorphone) as licensed products under the Durect Agreement. Removing these opioids from the Durect Agreement did not alter the terms of the Durect Agreement regarding REMOXY or otherwise amend the Durect Agreement. All terms and conditions of the Durect Agreement remain in full force and effect with respect to REMOXY.

Prior Agreements with Pfizer

Between 2005 and 2014, Pfizer paid us a total of \$290 million, including \$155 million in upfront fees, \$30 million in milestone payments and \$105 million to reimburse expenses we incurred under the agreements we had with Pfizer. Pfizer has no further obligations to us. We have no further obligations to Pfizer, except that we will owe Pfizer a one-time payment of \$200,000, payable at the time REMOXY is approved by the FDA, related to certain commercial manufacturing equipment we purchased from Pfizer.

Manufacturing

We do not own any manufacturing facilities. We outsource formulation, manufacturing and related activities to third-parties. Our sole supplier for commercial supplies of REMOXY was Mallinckrodt Pharmaceuticals, or Mallinckrodt. In a letter dated February 21, 2017, Mallinckrodt informed us of their intention to no longer supply us with commercial supplies

of REMOXY. We plan to negotiate with Mallinckrodt an orderly technology transfer from Mallinckrodt to an alternative third-party for commercial supplies of REMOXY.

Our suppliers must comply with current good manufacturing practices, or GMP, enforced by the FDA and other government agencies such as the U.S. Drug Enforcement Administration, or DEA. Our suppliers are subject to unannounced inspection by regulators, including pre-approval inspections by the FDA and the DEA, to ensure they are in strict compliance with government regulations and standards. Our suppliers may be forced to stop producing, storing, shipping or testing our drug products if they fall out of compliance with government regulations and standards.

We have no control over our suppliers' compliance, or lack thereof, with the multitude of regulations and standards that affect our drug products. We cannot control decisions by our suppliers that affect their ability or willingness to continue to supply us on acceptable terms, or at all.

We may not be able to replace a commercial supplier on commercially reasonable terms, or at all. Replacing any of our commercial suppliers will be expensive and time consuming. Further, if REMOXY is approved, our commercial suppliers may encounter difficulties in achieving high volumes of production to satisfy commercial demands. Failure by any of our suppliers to perform as expected could delay or prevent commercialization of REMOXY or result in shortages, cost overruns, or other problems and would materially harm our business.

Commercial supply of certain excipients from Durect

We will rely on Durect as the sole source of certain excipients in REMOXY. Durect has limited experience manufacturing pharmaceutical products and maintaining GMP-compliant operations. A Pre-Approval Inspection, or PAI, by FDA officials is often integral to the FDA approval process. A PAI is an unannounced evaluation of a manufacturing or test site for readiness for commercial scale manufacturing, conformance with commitments made in an NDA and data integrity. We do not and cannot know whether Durect's manufacturing or test facilities could pass a PAI inspection related to REMOXY.

We rely on Durect to supply to us certain excipients for the REMOXY formulation. Under the Durect Agreement, these excipients are supplied to us at Durect's cost, plus thirty (30) percent. We currently do not have a long-term commercial supply agreement in place with Durect. We expect that we and Durect will negotiate a supply agreement for these excipients. We may not be able to establish a commercial supply agreement on acceptable terms. Until a commercial supply agreement is in place with Durect, we expect to obtain excipients from Durect via individual purchase orders.

If we receive marketing approval for REMOXY, Durect may need to materially expand its manufacturing capacity. Durect may not be able to increase its manufacturing capacity for REMOXY in a timely or economic manner, or at all. Moreover, significant scale up of manufacturing will require additional validation studies, which are subject to FDA review and approval.

Commercial supply of oxycodone with Noramco

We expect to rely on Noramco as the sole source of the oxycodone base used in REMOXY. We currently do not have a long-term commercial supply agreement in place with Noramco. We expect to negotiate with Noramco a commercial supply agreement to supply us with oxycodone base. We may not be able to establish a commercial supply agreement on acceptable terms, or at all. Until we have a commercial supply agreement in place with Noramco, we expect to obtain oxycodone base from Noramco via individual purchase orders.

Commercial drug supply agreement with Mallinckrodt

Until recently, we expected to rely on Mallinckrodt as the sole-source drug product manufacturer of REMOXY pursuant to an Amended and Restated Commercial Supply Agreement, or the Mallinckrodt Agreement. Pfizer and Mallinckrodt established the Mallinckrodt Agreement when Pfizer was responsible for commercialization of REMOXY. Pfizer assigned the Mallinckrodt Agreement to us upon the termination of the Pfizer Agreements. In addition to drug product manufacturing, Mallinckrodt was responsible for sourcing excipients in REMOXY other than those provided by the Durect Agreement.

Other commercial manufacturing and supply agreements

We will rely on third-parties to conduct certain quality control and assurance testing, shipping or storage of REMOXY.

Government Regulation

Regulation by governmental authorities in the United States and other countries is a significant factor in the manufacture and marketing of pharmaceuticals and in our ongoing research and development activities. All of our products will require regulatory approval by governmental agencies prior to commercialization. In particular, human therapeutic products are subject to rigorous preclinical testing and clinical trials and other pre-marketing approval requirements by the FDA and regulatory authorities in other countries. In the United States, various federal, and in some cases state, statutes and regulations also govern or impact the manufacturing, safety, labeling, storage, record keeping and marketing of our products. The lengthy process of seeking required approvals and the continuing need for compliance with applicable statutes and regulations require us to spend substantial resources. Regulatory approval, when and if obtained, may be limited in scope which may significantly limit the indicated uses for which our products may be marketed. Further, approved drugs, as well as their manufacturers, are subject to ongoing review and discovery of previously unknown problems with such products that may result in restrictions on their manufacture, sale or use or in their withdrawal from the market.

Applicable FDA regulations require the filing of an NDA or a Biologic License Application, or BLA and approval by the FDA prior to commercialization of any of our drug candidates in the United States.

The Drug Approval Process

We will be required to complete several activities before we can market any of our drug candidates for human use in the United States, including:

- preclinical studies;
- submission to the FDA of an IND which must become effective before human clinical trials commence;
- adequate and well-controlled human clinical trials to establish the safety and efficacy of the drug candidate;
- submission to the FDA of an NDA; and
- FDA approval of the NDA prior to any commercial sale or shipment of the drug.

Preclinical tests include laboratory evaluation of product chemistry and formulation, as well as animal studies to assess the potential safety of the product. Preclinical safety tests must be conducted by laboratories that comply with FDA regulations regarding Good Laboratory Practice. We submitted the results of preclinical tests to the FDA as part of our INDs prior to commencing clinical trials. We may be required to conduct additional toxicology studies.

Based on preclinical testing, an IND is filed with the FDA to begin human testing of the drug in the United States. The IND becomes effective if not rejected by the FDA within 30 days. The IND must indicate the results of previous experiments, how, where and by whom the new clinical trials will be conducted, the chemical structure of the compound, the method by which it is believed to work in the human body, any toxic effects of the compound found in the animal studies and how the compound is manufactured. All clinical trials must be conducted in accordance with Good Clinical Practice. In addition, an Institutional Review Board, or IRB, generally comprised of physicians at the hospital or clinic where the proposed clinical trials will be conducted, must review and approve the IND. The IRB also continues to monitor the clinical trial. We must submit progress reports detailing the results of the clinical trials to the FDA at least annually. In addition, the FDA may, at any time during the 30-day period or at any time thereafter, impose a clinical hold on proposed or ongoing clinical trials. If the FDA imposes a clinical hold, clinical trials under the IND cannot commence or recommence without FDA authorization and then only under terms authorized by the FDA. An FDA imposed clinical hold on an IND application can result in substantial delay and large, unforeseen expenses, and it may cancel the viability of developing a new drug candidate in the United States.

Clinical trials are typically conducted in three sequential phases that may overlap. Phase I clinical trials typically study a drug's safety profile, and may include the safe dosage range. Phase I clinical trials also determine how a drug is absorbed, distributed, metabolized and excreted by the body, and the duration of its action. In addition, we may, to the extent feasible, assess early indicators of a drug's efficacy in our Phase I clinical trials. In Phase II clinical trials, controlled studies are conducted on volunteer patients with the targeted disease or condition. The primary purpose of these tests is to evaluate the effectiveness of the drug on the volunteer patients as well as to determine a drug's side effect profile. These clinical trials may be conducted concurrently with Phase I clinical trials. In addition, Phase I/II clinical trials may be conducted to evaluate not only the efficacy of the drug on the patient population, but also its safety. During Phase III clinical trials, the drug is studied

in an expanded patient population and in multiple sites. Physicians monitor the patients to determine efficacy and to observe and report adverse events that may result from use of the drug.

Our clinical trials are designed to produce clinical information about how our drugs perform compared to placebo or compared to existing drugs where appropriate. We have designed most Phase II and Phase III clinical trials to date as randomized, double-blind, placebo-controlled, dose-ranging studies. A randomized clinical trial is one in which patients are randomly assigned to the various study treatment arms. A double-blind clinical trial is one in which the patient, the physician and our trial monitor are unaware if the patient is receiving placebo or study drug in order to preserve the integrity of the clinical trial and reduce bias. A placebo-controlled clinical trial is one in which a subset of patients is purposefully given inactive medication.

We may not successfully complete Phase I, Phase II or Phase III clinical trials within any specified time period, or at all, with respect to any of our drug candidates. Furthermore, we or the FDA may suspend clinical trials at any time in response to concerns that participants are exposed to an unacceptable health risk.

After the completion of clinical trials, if there is substantial evidence that the drug is safe and effective, an NDA is filed with the FDA. The NDA must contain all of the information on the drug gathered to that date, including data from the clinical trials. NDAs often exceed 100,000 pages in length.

The FDA may request additional information before accepting an NDA. In such an event, the NDA must be resubmitted with the additional information and, again, is subject to review before filing. Once the submission is accepted for filing, the FDA begins an in-depth review of the NDA. Under the Federal Food, Drug and Cosmetic Act, the FDA reviews the NDA and responds to the applicant. The review process is typically extended for significant amounts of time by the FDA's requests for additional information or clarification regarding information already provided in the submission. The FDA may refer the application to an appropriate advisory committee, typically a panel of clinicians, for review, evaluation and a recommendation as to whether the application should be approved. The FDA is not bound by the recommendation of an advisory committee.

If the FDA's evaluations of the NDA and the manufacturing facilities are favorable, the FDA may issue either a Complete Response Letter indicating either an approval or may identify conditions that must be met in order to secure final approval of the NDA. When and if those conditions have been met to the FDA's satisfaction, the FDA will issue an approval letter, authorizing commercial marketing of the drug for certain indications. If the FDA's evaluation of the NDA submission or manufacturing facilities is not favorable, the FDA may refuse to approve the NDA or issue a not approvable letter.

If the FDA approves the NDA, the drug becomes available for physicians to prescribe. Periodic reports must be submitted to the FDA, including descriptions of any reported adverse reactions. The FDA may request additional post-marketing studies, or Phase IV clinical trials, to evaluate long-term effects of the approved drug.

Other Regulatory Requirements

The FDA mandates that drugs be manufactured in conformity with current GMP. If the FDA approves any of our drug candidates, we will be subject to requirements for labeling, advertising, record keeping and adverse experience reporting. Failure to comply with these requirements could result, among other things, in suspension of regulatory approval, recalls, injunctions or civil or criminal sanctions. We may also be subject to regulations under other federal, state, and local laws, including the Occupational Safety and Health Act, the Environmental Protection Act, the Clean Air Act, national restrictions on technology transfer, and import, export, and customs regulations. In addition, any of our products that contain narcotics will be subject to DEA regulations relating to manufacturing, storage, distribution and physician prescribing procedures. It is possible that any portion of the regulatory framework under which we operate may change and that such change could have a negative impact on our current and anticipated operations.

The Controlled Substances Act imposes various registration, record-keeping and reporting requirements, procurement and manufacturing quotas, labeling and packaging requirements, security controls and a restriction on prescription refills on certain pharmaceutical products. A principal factor in determining the particular requirements, if any, applicable to a product is its actual or potential abuse profile. The DEA regulates chemical compounds as Schedule I, II, III, IV or V substances, with Schedule I substances considered to present the highest risk of substance abuse and Schedule V substances the lowest risk. Any of our drug candidates that contain a scheduled substance will be subject to regulation by the DEA.

Competition

Our success will depend, in part, upon our ability to achieve market share at the expense of existing and established and future products in the relevant target markets. Existing and future products, therapies, technological approaches or delivery systems will compete directly with our products. Competing products may provide greater therapeutic benefits for a specific indication, or may offer comparable performance at a lower cost. Companies that currently sell generic or proprietary opioid formulations may include, but are not limited to, Purdue Pharma, Collegium, Inc., Pfizer, Roxane Laboratories, Mylan, Abbott Laboratories, Endo Pharmaceuticals, Teva Pharmaceuticals, Elkins-Sinn, Watson Laboratories, Ortho-McNeil Pharmaceutical and Forest Pharmaceuticals.

Alternative technologies are being developed to address the issue of abuse or misuse of opioid painkillers or increase opioid potency, as well as alternatives to opioid therapy for pain management, several of which are in clinical trials or are awaiting approval from the FDA.

We compete with fully integrated pharmaceutical companies, smaller companies that are collaborating with larger pharmaceutical companies, academic institutions, government agencies and other public and private research organizations. Many of these competitors have opioid drugs already approved by the FDA or in development and operate larger research and development programs in these fields than we do. In addition, many of these competitors, either alone or together with their collaborative partners, have substantially greater financial resources than we do, as well as significantly greater experience in:

- developing drugs;
- undertaking preclinical testing and human clinical trials;
- obtaining FDA and other regulatory approvals of drugs;
- formulating and manufacturing drugs; and
- launching, marketing, distributing and selling drugs.

Developments by competitors may render our drug candidates or technologies obsolete or non-competitive. We also compete with these companies for qualified personnel and opportunities for product acquisitions, joint ventures or other strategic alliances.

Incorporation

We were incorporated in Delaware in May 1998.

Employees

As of December 31, 2016, we had 9 employees. We engage consultants from time to time to perform services on retainer, a per diem or hourly basis.

Available Information

We file electronically with the Securities and Exchange Commission, or SEC, our annual reports on Form 10-K, quarterly reports on Form 10-Q and current reports on Form 8-K pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934. The public may read or copy any materials we file with the SEC at the SEC's Public Reference Room at 450 Fifth Street, NW, Washington, DC 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC maintains an Internet site that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC. The address of that site is <http://www.sec.gov>.

You may obtain a free copy of our annual reports on Form 10-K, quarterly reports on Form 10-Q and current reports on Form 8-K and amendments to those reports on the day of filing with the SEC on our website on the World Wide Web at <http://www.paintrials.com>, by contacting our corporate offices by calling 512-501-2444 or by sending an e-mail message to IR@paintrials.com.

Item 1A. Risk Factors

Our future operating results may vary substantially from anticipated results due to a number of factors, many of which are beyond our control. The following discussion highlights some of these factors and the possible impact of these factors on future results of operations. You should carefully consider these factors before making an investment decision. If any of the following factors actually occur, our business, financial condition or results of operations could be harmed. In that case, the price of our common stock could decline, and you could experience losses on your investment in our common stock.

Clinical and Regulatory Risks

If we fail to obtain the necessary regulatory approvals, or if such approvals are limited, we and our collaborators will not be allowed to commercialize our drug candidates, and we will not generate product revenues.

Satisfaction of all regulatory requirements for commercialization of a drug candidate typically takes many years, is dependent upon the type, complexity and novelty of the drug candidate, and requires the expenditure of substantial resources for research and development. In December 2008, we received from the FDA a Complete Response Letter for the NDA for REMOXY. In this Complete Response Letter, the FDA indicated that additional non-clinical data was required to support the approval of REMOXY. However, the FDA did not request or recommend additional clinical efficacy studies prior to approval. In March 2009, King Pharmaceuticals, Inc., or King, assumed sole responsibility for the regulatory approval of REMOXY. In December 2010, King resubmitted the NDA for REMOXY. In June 2011, we and Pfizer announced that King received a Complete Response Letter from the FDA in response to King's resubmission of the REMOXY NDA. The FDA's Complete Response Letter raised concerns related to, among other matters, the Chemistry, Manufacturing, and Controls section of the NDA for REMOXY. Certain drug lots showed inconsistent release performance during *in vitro* testing. Pfizer completed work designed to address the June 2011 Complete Response Letter. On April 21, 2015, we announced that we resumed responsibility for REMOXY under the terms of a letter agreement with Pfizer. The letter agreement was entered into within the scope of the previously disclosed provisions of the Collaboration Agreement between us and Pfizer relating to the return of REMOXY.

We believe Pfizer has now transferred to us its data, materials, capital equipment and other assets related to REMOXY. Pfizer and the FDA had discussed and agreed to a regulatory plan to refile the NDA for REMOXY. The FDA had agreed that we may follow this plan for the NDA for REMOXY.

In March 2016, we resubmitted to the FDA the NDA for REMOXY. In April 2016, the FDA determined that the NDA for REMOXY was sufficiently complete to permit a substantive review. On May 19, 2016, we announced that the FDA planned to hold an Advisory Committee meeting to review the NDA for REMOXY. On July 1, 2016, we announced that the FDA had determined that an Advisory Committee meeting for REMOXY was unnecessary and would not be held.

In September 2016, we received a CRL from the FDA on the resubmission of NDA for REMOXY. The CRL informed us that the NDA for REMOXY could not be approved in its present form and specifies additional actions and data that are needed for drug approval. The CRL focuses on the abuse-deterrent properties of REMOXY and proposed drug labeling.

On February 13, 2017, we met with the FDA regarding REMOXY. During this meeting, we reached agreement with the FDA on a roadmap to resubmit the NDA for REMOXY. We expect to disclose details of this meeting, including timelines and additional data to be developed, after minutes of the meeting are issued.

There can be no assurance that the FDA will approve an NDA for REMOXY or that the FDA will not require submission of additional clinical or non-clinical data. Obtaining data from such studies (even if completed) that is insufficient to support approval of REMOXY, or any adverse decisions by the FDA (including any decision by the FDA to require additional clinical or non-clinical data) may significantly delay or prevent the potential approval of REMOXY.

Our research and clinical approaches may not lead to drugs that the FDA considers safe for humans and effective for indicated uses we are studying. The FDA may require additional studies, in which case we or our collaborators would have to expend additional time and resources and would likely delay the date of potentially receiving regulatory approval. The

approval process may also be delayed by changes in government regulation, future legislation or administrative action or changes in FDA policy that occur prior to or during our regulatory review. Delays in obtaining regulatory approvals would:

- delay commercialization of, and product revenues from, our drug candidates; and
- diminish the competitive advantages that we may have otherwise enjoyed, which would have an adverse effect on our operating results and financial condition.

Even if we or our collaborators comply with all FDA regulatory requirements, our drug candidates may never obtain regulatory approval. If we or our collaborators fail to obtain regulatory approval for any of our drug candidates we will have fewer commercial products, if any, and corresponding lower product revenues, if any. Even if our drug candidates receive regulatory approval, such approval may involve limitations on the indications and conditions of use or marketing claims for our products. Further, later discovery of previously unknown problems or adverse events could result in additional regulatory restrictions, including withdrawal of products. The FDA may also require us or our collaborators to commit to perform lengthy Phase IV post-approval clinical efficacy or safety studies. Our expending additional resources on such trials would have an adverse effect on our operating results and financial condition.

In jurisdictions outside the United States, we must receive marketing authorizations from the appropriate regulatory authorities before commercializing our drugs. Regulatory approval processes outside the United States generally include all of the aforementioned requirements and risks associated with FDA approval.

If we are unable to design, conduct and complete preclinical and clinical trials successfully, our drug candidates will not be able to receive regulatory approval.

In order to obtain FDA approval for any of our drug candidates, we must submit to the FDA an NDA that demonstrates with substantive evidence that the drug candidate is both safe and effective in humans for its intended use. This demonstration requires significant research and animal tests, which are referred to as preclinical studies, as well as human tests, which are referred to as clinical trials.

Preclinical studies may not provide results we believe are sufficient to support the filing of an IND. Success in early preclinical studies does not ensure success in later preclinical or clinical studies. The FDA may disagree with the design of our preclinical studies or our interpretations of data from preclinical studies. The FDA may not accept an IND for our product candidate and may require additional preclinical studies to support the filing of an IND.

Success in preclinical studies and early clinical trials does not ensure that later clinical trials will be successful. Results from Phase I clinical programs may not support moving a drug candidate to Phase II or Phase III clinical trials. Phase III clinical trials may not demonstrate the safety or efficacy of our drug candidates. Results of later clinical trials may not replicate the results of prior clinical trials and preclinical studies. Even if the results of Phase III clinical trials are positive, we or our collaborators may have to commit substantial time and additional resources to conducting further preclinical studies and clinical trials before obtaining FDA approval for any of our drug candidates.

Clinical trials are very expensive and difficult to design and implement, in part because they are subject to rigorous requirements. The clinical trial process also consumes a significant amount of time. Furthermore, if patients in clinical trials suffer drug-related adverse reactions during the course of such clinical trials, or if we, our collaborators or the FDA believe that participating patients are being exposed to unacceptable health risks, such clinical trials will have to be suspended or terminated. Failure can occur at any stage of the clinical trials, and we or our collaborators could encounter problems that cause abandonment or repetition of clinical trials.

Clinical trials with REMOXY and our potential future clinical trials for other drug candidates for treatment of pain measure clinical symptoms, such as pain and physical dependence, that are not biologically measurable. The success in these clinical trials depends on reaching statistically significant changes in patients' symptoms based on clinician-rated scales. Due in part to a lack of consensus on standardized processes for assessing clinical outcomes, these scores may or may not be reliable, useful or acceptable to regulatory agencies.

In addition, completion of clinical trials can be delayed by numerous factors, including:

- delays in identifying and agreeing on acceptable terms with prospective clinical trial sites;
- slower than expected rates of patient recruitment and enrollment;
- unanticipated patient dropout rates;
- increases in time required to complete monitoring of patients during or after participation in a clinical trial; and
- unexpected need for additional patient-related data.

Any of these delays could significantly impact the timing, approval and commercialization of our drug candidates and could significantly increase our overall costs of drug development.

Even if clinical trials are completed as planned, their results may not support expectations or intended marketing claims. The clinical trials process may fail to demonstrate that our drug candidates are safe and effective for indicated uses. Such failure would cause us to abandon a drug candidate and could delay development of other drug candidates.

Clinical trial designs that were discussed with regulatory authorities prior to their commencement may subsequently be considered insufficient for approval at the time of application for regulatory approval.

We discuss with and obtain guidance from regulatory authorities on certain of our clinical development activities. With the exception of our SPA, these discussions are not binding obligations on the part of regulatory authorities.

Regulatory authorities may revise previous guidance or decide to ignore previous guidance at any time during the course of our clinical activities or after the completion of our clinical trials. Even with successful clinical safety and efficacy data, including such data from a clinical trial conducted pursuant to a Special Protocol Assessment, or SPA, we or our collaborators may be required to conduct additional, expensive clinical trials to obtain regulatory approval.

Developments by competitors may establish standards of care that affect our ability to conduct our clinical trials as planned.

We have conducted clinical trials of our drug candidates comparing our drug candidates to both placebo and other approved drugs. Changes in standards related to clinical trial design could affect our ability to design and conduct clinical trials as planned. For example, regulatory authorities may not allow us to compare our drug candidates to placebo in a particular clinical indication where approved products are available. In that case, both the cost and the amount of time required to conduct a clinical trial could increase.

The U.S. Drug Enforcement Agency, or DEA, limits the availability of the active ingredients in certain of our current drug candidates and, as a result, quotas for these ingredients may not be sufficient to complete clinical trials, or to meet commercial demand, or may result in clinical delays.

The DEA regulates chemical compounds as Schedule I, II, III, IV or V substances, with Schedule I substances considered to present the highest risk of substance abuse and Schedule V substances the lowest risk. Certain active ingredients in our current drug candidates, such as oxycodone, are listed by the DEA as Schedule II under the Controlled Substances Act of 1970. Consequently, their manufacture, research, shipment, storage, sale and use are subject to a high degree of oversight and regulation. For example, all Schedule II drug prescriptions must be signed by a physician, physically presented to a pharmacist and may not be refilled without a new prescription. Furthermore, the amount of Schedule II substances that can be obtained for clinical trials and commercial distribution is limited by the DEA and quotas for these substances may not be sufficient to complete clinical trials or meet commercial demand. There is a risk that DEA regulations may interfere with the supply of the drugs used in clinical trials for our product candidates, and, in the future, the ability to produce and distribute our products in the volume needed to meet commercial demand.

Conducting clinical trials of our drug candidates or potential commercial sales of a drug candidate may expose us to expensive product liability claims, and we may not be able to maintain product liability insurance on reasonable terms or at all.

The risk of product liability is inherent in the testing of pharmaceutical products. If we cannot successfully defend ourselves against product liability claims, we may incur substantial liabilities or be required to limit or terminate testing of one or more of our drug candidates. Our inability to obtain sufficient product liability insurance at an acceptable cost to protect

against potential product liability claims could prevent or inhibit the commercialization of our drug candidates. We currently carry clinical trial insurance but do not carry product liability insurance. If we successfully commercialize one or more of our drug candidates, we may face product liability claims, regardless of FDA approval for commercial manufacturing and sale. We may not be able to obtain such insurance at a reasonable cost, if at all. Even if our agreements with any current or future corporate collaborators entitle us to indemnification against product liability losses, such indemnification may not be available or adequate should any claim arise.

If our drug candidates receive regulatory approval, we and our collaborators will be subject to ongoing FDA obligations and continued regulatory review, such as continued safety reporting requirements, and we and our collaborators may also be subject to additional FDA post-marketing obligations or new regulations, all of which may result in significant expense and limit our and our collaborators' ability to commercialize our potential drugs.

Any regulatory approvals that our drug candidates receive may also be subject to limitations on the indicated uses for which the drug may be marketed or contain requirements for potentially costly post-marketing follow-up studies. In addition, if the FDA approves any of our drug candidates, the labeling, packaging, adverse event reporting, storage, advertising, promotion and record keeping for the drug will be subject to extensive regulatory requirements. The subsequent discovery of previously unknown problems with the drug, including but not limited to adverse events of unanticipated severity or frequency, or the discovery that adverse events previously observed in preclinical research or clinical trials that were believed to be minor actually constitute much more serious problems, may result in restrictions on the marketing of the drug, and could include withdrawal of the drug from the market.

The FDA's policies may change and additional government regulations may be enacted that could prevent or delay regulatory approval of our drug candidates. We cannot predict the likelihood, nature or extent of adverse government regulation that may arise from future legislation or administrative action, either in the United States or abroad. If we are not able to maintain regulatory compliance, we may be subject to fines, suspension or withdrawal of regulatory approvals, product recalls, seizure of products, operating restrictions and criminal prosecution. Any of these events could prevent us from marketing our drugs and our business could suffer.

We may not be able to successfully develop or commercialize FENROCK, a proprietary abuse-deterrent transdermal pain patch (fentanyl), designed to prevent common methods of abuse of fentanyl.

We have no history of developing transdermal patches. We do not know whether any of our planned development activities for FENROCK will result in approval of such drug candidate by the FDA, or, if FENROCK is approved, it will be a commercially viable product.

Risks Relating to our Collaboration Agreements

If Pfizer did not transfer to us all data and documentation or the quality of the data and documentation transferred is insufficient, our ability to achieve approval of the NDA for REMOXY will be negatively impacted and our business will suffer.

In April 2015, we announced that we resumed responsibility for REMOXY under the terms of a letter agreement with Pfizer. The letter agreement was entered into within the scope of the previously disclosed provisions of the Collaboration Agreement between us and Pfizer relating to the return of REMOXY.

We believe Pfizer has transferred to us data, materials, capital equipment and other assets related to REMOXY. In preparing to resubmit the NDA for REMOXY, we may find that there are additional data, materials or agreements that Pfizer should have transferred to us. If Pfizer did not meet its obligations to transfer all such materials or if the quality of the data and documentation transferred is insufficient, we would be significantly delayed in our ability to achieve FDA approval of the NDA for REMOXY, and may need to conduct further development activities or clinical trials to prepare any potential resubmission. As a result, any further development, regulatory approval and product introduction for REMOXY would be delayed or prevented and our business would suffer.

If outside collaborators fail to devote sufficient time and resources to drug development programs related to our product candidates, or if their performance is substandard, regulatory submissions and introductions for our products may be delayed.

We rely on Durect as the sole-source provider of certain components of REMOXY. Durect's failure for any reason to provide these components could result in delays or failures in product testing or delivery, cost overruns or other problems that could materially harm our business.

We depend on independent investigators and collaborators, such as universities and medical institutions, to conduct our clinical trials under agreements with us. These investigators and collaborators are not our employees, and we cannot control the amount or timing of resources that they devote to our programs. They may not assign as great a priority to our programs or pursue them as diligently as we would if we were undertaking such activities ourselves. If these investigators or collaborators fail to devote sufficient time and resources to our drug development programs, or if their performance is substandard, the approval of our regulatory submissions and our introductions of new drugs will be delayed or prevented.

Our collaborators may also have relationships with other commercial entities, some of which may compete with us. If outside collaborators assist our competitors to our detriment, the approval of our regulatory submissions will be delayed and the sales from our products, if any are commercialized, will be less than expected.

If we fail to enter into or maintain collaboration agreements and licenses for REMOXY and other drugs designed to reduce potential risks of unintended use, we may have to reduce or delay our drug candidate development.

Our plan for developing, manufacturing and commercializing REMOXY currently requires us to successfully maintain our license from Durect. If we are unable to meet the obligations necessary to maintain our license with Durect for one or more potential products we may lose the rights to utilize Durect's technology for such potential products, our potential future revenues may suffer and we may have to reduce or delay development of our other drug candidates. In addition, we expect to seek a new corporate collaborator with respect to REMOXY. If we do not enter into a new collaboration with respect to the continued development and potential commercialization of REMOXY, we will be required to undertake and fund such activities ourselves and may need to seek additional capital (which may not be available on acceptable terms, if at all), personnel or other resources. If we are not successful in such efforts, development and commercialization of REMOXY and our other drug candidates would be delayed or prevented, and our business would suffer.

We may not succeed at in-licensing drug candidates or technologies to expand our product pipeline.

We may not successfully in-license drug candidates or technologies to expand our product pipeline. The number of such candidates and technologies is limited. Competition among large pharmaceutical companies and biopharmaceutical companies for promising drug candidates and technologies is intense because such companies generally desire to expand their product pipelines through in-licensing. If we fail to carry out such in-licensing and expand our product pipeline, our potential future revenues may suffer.

Our collaborative agreements may not succeed or may give rise to disputes over intellectual property, disputes concerning the scope of collaboration activities or other issues.

Our collaborative agreements with third parties, such as our license agreement with Durect, are generally complex and contain provisions that could give rise to legal disputes, including potential disputes concerning ownership of intellectual property under collaborations or disputes concerning the scope of collaboration activities. Such disputes can delay or prevent the development of potential new drug products, or can lead to lengthy, expensive litigation or arbitration. Other factors relating to collaborative agreements may adversely affect our business, including:

- the development of parallel products by our collaborators or by a competitor;
- arrangements with collaborative partners that limit or preclude us from developing certain products or technologies;
- premature termination of a collaborative or license agreement; or
- failure by a collaborative partner to provide required funding, to devote sufficient resources to the development of or legal defense of our potential products or to provide data or other information to us as required by our collaborative agreements.

Risks Relating to Commercialization

We currently have no in-house capabilities to commercialize our drug products and if we are unable to develop our own sales, marketing and distribution capabilities, or if we are not successful in contracting with third parties for these services on favorable terms, or at all, our product revenues could be disappointing.

We currently have no sales, marketing or distribution capabilities. We have not established commercial strategies regarding any of our product candidates, including REMOXY. In order to commercialize our products, if any approved by the FDA, we will either have to develop such capabilities internally or collaborate with third parties who can perform these services for us.

If we decide to commercialize any of our drugs ourselves, we may not be able to

- hire and retain the necessary experienced personnel;
- build sales, marketing and distribution operations in a cost effective manner which are capable of successfully launching new drugs;
- obtain access to adequate numbers of physicians to prescribe our products; or
- generate sufficient product revenues.

In addition, establishing such operations on our own will take time and involve significant expense. If our commercial operations lack complementary products, we may not be able to compete in a cost effective manner with competitors with more products to sell. If we engage third-party collaborators to perform any commercial operations, our future revenues may depend significantly upon the performance of those collaborators.

If we decide to enter into new co-promotion or other licensing arrangements with third parties, we may be unable to locate acceptable collaborators because the number of potential collaborators is limited and because of competition from others for similar alliances with potential collaborators. Even if we are able to identify one or more acceptable new collaborators, we may not be able to enter into any collaborative arrangements on favorable terms, or at all.

In addition, due to the nature of the market for our drug candidates, it may be necessary for us to license all or substantially all of our drug candidates to a single collaborator, thereby eliminating our opportunity to commercialize these other products independently. If we enter into any such new collaborative arrangements, our revenues are likely to be lower than if we marketed and sold our products ourselves.

In addition, any revenues we receive would depend upon our collaborators' efforts which may not be adequate due to lack of attention or resource commitments, management turnover, change of strategic focus, business combinations or other factors outside of our control. Depending upon the terms of our collaboration, the remedies we have against an under-performing collaborator may be limited. If we were to terminate the relationship, it may be difficult or impossible to find a replacement collaborator on acceptable terms, or at all.

If physicians and patients do not accept and use our drugs, we will not achieve sufficient product revenues and our business will suffer.

Even if the FDA approves our drugs, physicians and patients may not accept and use them. Acceptance and use of our drugs will depend on a number of factors including:

- when the drug is launched into the market and related competition;
- approved label claims;
- perceptions by members of the healthcare community, including physicians, about the safety and effectiveness of our drugs, and, in particular, the effectiveness of REMOXY in reducing potential risks of unintended use;
- perceptions by physicians regarding the cost benefit of REMOXY in reducing potential risks of unintended use;
- published studies demonstrating the cost-effectiveness of our drugs relative to competing products;
- availability of reimbursement for our products from government or healthcare payers;
- our or our collaborators' ability to implement a risk management plan prior to the distribution of any Schedule II drug; and

- effectiveness of marketing and distribution efforts by us and other licensees and distributors.

Because we expect to rely on sales generated by our current lead drug candidates for substantially all of our revenues for the foreseeable future, the failure of any of these drugs to find market acceptance would harm our business and could require us to seek additional financing.

The science of abuse-deterrence is relatively new.

The analytical, clinical, and statistical methods for evaluating abuse-deterrent technologies and study results are new and rapidly evolving. Although we believe the FDA will take a flexible, adaptive approach to the evaluation and labeling of potentially abuse-deterrent products, such as REMOXY, we cannot be certain that our interpretation of abuse-deterrent data for REMOXY is consistent with the views of the FDA. In our opinion, the FDA has limited data correlating the potentially abuse-deterrent properties of certain opioid drug products, such as REMOXY, with actual reduction in abuse or adverse events associated with abuse. In addition, the FDA has stated it is not able to provide specific guidance on the magnitude of effect that would be sufficient to support any particular type of label claim for abuse-deterrence.

In the United States, our ability to market and promote REMOXY and its abuse-deterrent features will be determined by FDA-approved labeling.

The commercial success of REMOXY and certain of our other product candidates will depend upon our ability to obtain FDA-approved labeling describing their abuse-deterrent features. Our failure to achieve FDA approval of product labeling containing such information will prevent us from advertising and promoting the abuse-deterrent features of our product candidates in order to differentiate them from other similar products. This would make our products less competitive in the market.

Abuse-deterrent label claims for our products may not be broad enough to demonstrate a substantial benefit to health care providers and patients.

FDA approval is required in order to make claims that a product has an abuse-deterrent effect. In April 2015, the FDA published final guidance with regard to the evaluation and labeling of abuse-deterrent opioids. The guidance provides direction as to the studies and data required for obtaining abuse-deterrent claims in a product label. FDA guidance describes three categories of pre-market studies that may lead to an abuse-deterrent claim:

- Category 1 – laboratory manipulation and extraction studies;
- Category 2 – pharmacokinetic studies; and
- Category 3 – human abuse potential studies.

According to FDA guidance, label claims for abuse-deterrence should describe the product's specific abuse-deterrent properties as well as the specific routes of abuse that the product has been developed to deter. When data predict or show that a product's potentially abuse-deterrent properties can be expected to, or actually do, result in a significant reduction in that product's abuse potential, these data, together with an accurate characterization of what the data mean, may be included in product labeling.

If a product is approved by the FDA to include such claims in its label, the applicant may use the approved labeling information about the abuse-deterrent features of the product in its marketing efforts to physicians.

Although we intend to provide data to the FDA to support approval of abuse-deterrence label claims for REMOXY, there can be no assurance that REMOXY or any of our other product candidates will receive FDA-approved labeling that describes the abuse-deterrent features of such products. The FDA may find that our studies and data do not support abuse-deterrent labeling or that our product candidates do not provide substantial abuse-deterrence because, for example, their deterrence mechanisms do not address the way they are most likely to be abused. Further, the FDA is not required to follow its guidance and could change this guidance, which could require us to conduct additional studies or generate additional data. If the FDA does not approve abuse-deterrent labeling, we will not be able to promote such products based on their abuse-deterrent features and our business may suffer.

Even if we do receive FDA approval for abuse-deterrent claims, the claims may not be broad enough to demonstrate a substantial benefit to health care providers and patients. For instance, the claims may not encompass the more common forms of abuse for products like our product candidates. Moreover, continued investigation in Phase IV studies following product approval, if required, is expensive and may not support the continued use of abuse-deterrent claims.

If we cannot compete successfully for market share against other drug companies, we may not achieve sufficient product revenues and our business will suffer.

The market for our drug candidates is characterized by intense competition and rapid technological advances. If our drug candidates receive FDA approval, they will compete with a number of existing and future drugs and therapies developed, manufactured and marketed by others. Existing or future competing products may provide greater therapeutic convenience or clinical or other benefits for a specific indication than our products, or may offer comparable performance at a lower cost. If our products are unable to capture and maintain market share, we may not achieve sufficient product revenues and our business will suffer.

We and our collaborators will compete for market share against fully integrated pharmaceutical companies or other companies that are collaborating with larger pharmaceutical companies, academic institutions, government agencies and other public and private research organizations. Many of these competitors have drugs already approved or drug candidates in development that will or may compete against our approved drug candidates. In addition, many of these competitors, either alone or together with their collaborative partners, operate larger research and development programs and have substantially greater financial resources than we do, as well as significantly greater experience in:

- developing drugs;
- conducting preclinical testing and human clinical trials;
- obtaining FDA and other regulatory approvals of drugs;
- formulating and manufacturing drugs; and
- launching, marketing, distributing and selling drugs.

If we fail to obtain acceptable prices or an adequate level of reimbursement for our products from healthcare payers, our ability to generate product revenues will be diminished.

Our ability to commercialize drugs we (alone or with other collaborators) may develop will depend in part on the extent to which reimbursement can be obtained for such drugs from:

- government and health administration authorities;
- private health maintenance organizations and health insurers; and
- other healthcare payers.

Significant uncertainty exists as to the reimbursement status of newly approved healthcare products. Healthcare payers, including Medicare, health maintenance organizations and managed care organizations, are challenging the prices charged for medical products and services and/or are seeking pharmacoeconomic data to justify formulary acceptance and reimbursement practices. We currently have not generated pharmacoeconomic data on any of our drug candidates. Government and other healthcare payers increasingly are attempting to contain healthcare costs by limiting both coverage and the level of reimbursement for drugs, and by refusing, in some cases, to provide coverage for uses of approved products for disease indications for which the FDA has or has not granted labeling approval. Adequate third-party insurance coverage may not be available to patients for any products we discover and develop, alone or with collaborators. If government and other healthcare payers do not provide adequate coverage and reimbursement levels for our products, market acceptance of our drug candidates could be limited.

Enacted and future legislation may increase the difficulty and cost for us to commercialize our product candidates and may reduce the prices we are able to obtain for our product candidates.

Legislative and regulatory changes and future changes regarding the healthcare system could prevent or delay marketing approval of our product candidates, restrict or regulate post-approval activities or affect our ability to profitably sell any product candidates for which we obtain marketing approval.

In the United States, the Medicare Prescription Drug, Improvement, and Modernization Act of 2003, or the Medicare Modernization Act, established the Medicare Part D program and provided authority for limiting the number of drugs that will be covered in any therapeutic class thereunder. The Medicare Modernization Act, including its cost reduction initiatives, could limit the coverage and reimbursement rate that we receive for any of our approved products. Private payors may follow Medicare coverage policies and payment limitations in setting their own reimbursement rates resulting in similar limits in payments from private payors.

The Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act, or collectively, the Affordable Care Act, among other things, imposes a significant annual fee on companies that manufacture or import branded prescription drug products. It also contains substantial provisions intended to, among other things, broaden access to health insurance, reduce or constrain the growth of health care spending, enhance remedies against healthcare fraud and abuse, add new transparency requirements for the healthcare and health insurance industries, and impose additional health policy reforms, any of which could have a material adverse effect on our business. A significant number of provisions are not yet, or have only recently become, effective, but the Affordable Care Act may result in downward pressure on pharmaceutical pricing, especially under the Medicare program, and may also increase our regulatory burdens and operating costs.

The Affordable Care Act, as well as other healthcare reform measures that have been and may be adopted in the future, may result in more rigorous coverage criteria and in additional downward pressure on the price that we receive for any approved product, and could seriously harm our future revenues. Any reduction in reimbursement from Medicare or other government programs may result in a similar reduction in payments from private payors. The implementation of cost containment measures or other healthcare reforms may compromise our ability to generate revenue, attain profitability or commercialize our products.

The Affordable Care Act is a highly complex piece of legislation that continues to evolve. We do not and cannot understand or anticipate the full impact and potential implications of the Affordable Care Act on our business or on our drugs.

Even if we are able to commercialize any of our product candidates, our products may become subject to unfavorable pricing regulations or third-party coverage and reimbursement policies, which could have a material adverse effect on our business.

Our ability to commercialize any products successfully will depend in part on the extent to which coverage and adequate reimbursement for these products and related treatments will be available from government health administration authorities, private health insurers and other organizations. Government authorities and third-party payors, such as private health insurers and health maintenance organizations, determine which medications they will cover and establish reimbursement levels. A primary trend in the U.S. healthcare industry and elsewhere is cost containment. Government authorities and other third-party payors have attempted to control costs by limiting coverage and the amount of reimbursement for particular medications. Increasingly, third-party payors are requiring that drug companies provide them with predetermined discounts from list prices and are challenging the prices charged for medical products. We cannot be sure that coverage and reimbursement will be available for any product that we commercialize and, if reimbursement is available, what the level of reimbursement will be and whether it will be satisfactory. Coverage and reimbursement may impact the demand for, or the price of, any product candidate for which we obtain marketing approval. If coverage and reimbursement are not available or reimbursement is available only to limited levels, we may not be able to successfully commercialize any product candidate for which we obtain marketing approval.

There may be significant delays in obtaining coverage and reimbursement for newly approved drugs, and coverage may be more limited than the purposes for which the drug is approved by the FDA or foreign regulatory authorities. Moreover, eligibility for coverage and reimbursement does not imply that any drug will be paid for in all cases or at a rate that covers our costs, including research, development, manufacture, sale and distribution. Interim reimbursement levels for new drugs, if applicable, may also be insufficient to cover our costs and may only be temporary. Reimbursement rates may vary according to the use of the drug and the clinical setting in which it is used, may be based on reimbursement levels already set for lower cost drugs and may be incorporated into existing payments for other services. Net prices for drugs may be reduced by mandatory discounts or rebates required by government healthcare programs or private payors and by any future relaxation of laws that presently restrict imports of drugs from countries where they may be sold at lower prices than in the United States. Third-party payors often rely upon Medicare coverage policy and payment limitations in setting their own reimbursement policies. Our inability to promptly obtain coverage and profitable reimbursement rates from both government-funded and private payors for any approved products that we develop could have a material adverse effect on our operating results, our ability to raise capital needed to commercialize products and our overall financial condition.

Public concern over the abuse of opioids, including law enforcement concerns over diversion of opioid and regulatory efforts to combat abuse, could decrease the potential market for our product candidates.

Media stories regarding prescription drug abuse and the diversion of opioids and other controlled substances are commonplace. Law enforcement and regulatory agencies may apply policies that seek to limit the availability of opioids. Such efforts may inhibit our ability to commercialize our product candidates. Aggressive enforcement and unfavorable publicity

regarding, for example, the use or misuse of oxycodone or other opioid drugs; the limitations of ADFs; the ability of drug abusers to discover previously unknown ways to abuse our products; public inquiries and investigations into prescription drug abuse; litigation; or regulatory activity regarding sales, marketing, distribution or storage of opioid drugs could have a material adverse effect on our reputation. Such negative publicity could reduce the potential size of the market for our product candidates and decrease the revenues we are able to generate from their sale. To the extent opioid abuse becomes less prevalent or less urgent of a public health issue, regulators and third party payers may not be willing to pay a premium for ADFs of opioids.

Efforts by the FDA and other regulatory bodies to combat abuse of opioids may negatively impact the market for our product candidates. For example, on September 10, 2013, the FDA announced its intention to effect labeling changes to all approved long-acting opioid formulations. In particular, the FDA announced its intention to update the indication for long-acting opioid formulations so that long-acting opioid formulations will be indicated only for the management of pain severe enough to require daily, around-the-clock, long-term opioid treatment and for which alternative treatment options are inadequate. On April 16, 2014, the FDA updated these indications. It is possible that such changes could reduce the number of prescriptions for opioids written by physicians and negatively impact the potential market for our product candidates.

If the FDA or other applicable regulatory authorities approve generic products with abuse-deterrent claims that compete with any of our product candidates, it could reduce our sales of those product candidates.

Once an NDA, including a Section 505(b)(2) application, is approved, the product covered thereby becomes a "listed drug" which can, in turn, be cited by potential competitors in support of approval of an abbreviated NDA, or ANDA. Potential competitors may create modified, non-infringing versions of a drug to facilitate the approval of an ANDA or other application for generic substitutes. These competitors might only be required to conduct a relatively inexpensive study to show that their product has the same active ingredients, dosage form, strength, route of administration, and conditions of use, or labeling, as our products and that the generic product is absorbed in the body at the same rate and to the same extent as, or is bioequivalent to, our products. These generic equivalents would be significantly less costly than ours to bring to market and companies that produce generic equivalents are generally able to offer their products at lower prices. Thus, after the introduction of a generic competitor, a significant percentage of the sales of any branded product are typically lost to the generic product. Accordingly, competition from generic equivalents to our products would substantially limit our ability to generate revenues and therefore to obtain a return on the investments we have made in our product candidates.

Our relationships with customers and payors will be subject to applicable anti-kickback, fraud and abuse, transparency, and other healthcare laws and regulations, which could expose us to criminal sanctions, civil penalties, exclusion from government healthcare programs, contractual damages, reputational harm, administrative burdens, and diminished profits and future earnings.

Healthcare providers, physicians and payors play a primary role in the recommendation and prescription of any product candidates for which we may obtain marketing approval. Our future arrangements with payors and customers may expose us to broadly applicable fraud and abuse and other healthcare laws and regulations that may constrain the business or financial arrangements and relationships through which we market, sell and distribute any product candidates for which we may obtain marketing approval. Even though we do not and will not control referrals of healthcare services or bill directly to Medicare, Medicaid or other third-party payors, federal and state healthcare laws and regulations pertaining to fraud and abuse and patients' rights are and will be applicable to our business. Restrictions under applicable federal, state and foreign healthcare laws and regulations may affect our ability to operate and expose us to areas of risk, including:

- the federal Anti-Kickback Statute, which prohibits, among other things, knowingly and willfully soliciting, offering, receiving or providing remuneration, directly or indirectly, in cash or in kind, to induce or reward either the referral of an individual for, or the purchase, order or recommendation of, any good or service, for which payment may be made under federal and state healthcare programs such as Medicare and Medicaid. A person or entity does not need to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation;
- the federal False Claims Act, which imposes criminal and civil penalties, including through civil whistleblower or qui tam actions, against individuals or entities for knowingly presenting, or causing to be presented, to the federal government, claims for payment that are false or fraudulent or making a false statement to avoid, decrease or conceal an obligation to pay money to the federal government. In addition, the government may assert that a claim including items and services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the False Claims Act;

- the federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, which imposes criminal and civil liability for executing a scheme to defraud any healthcare benefit program or making false statements relating to healthcare matters. Similar to the federal Anti-Kickback Statute, a person or entity does not need to have actual knowledge of the statute to defraud any healthcare benefit program or specific intent to violate it in order to have committed a violation;
- HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act of 2009, or HITECH, and its implementing regulations, which also imposes obligations on certain covered entity healthcare providers, health plans, and healthcare clearinghouses as well as their business associates that perform certain services involving the use or disclosure of individually identifiable health information, including mandatory contractual terms, with respect to safeguarding the privacy, security and transmission of individually identifiable health information;
- federal laws requiring drug manufacturers to report information related to payments and other transfers of value made to physicians and other healthcare providers, as well as ownership or investment interests held by physicians and their immediate family members, including under the federal Open Payments program, commonly known as the Sunshine Act, as well as other state and foreign laws regulating marketing activities; and
- state and foreign equivalents of each of the above laws, including state anti-kickback and false claims laws, which may apply to sales or marketing arrangements and claims involving healthcare items or services reimbursed by non-governmental payors, including private insurers; state laws which require pharmaceutical companies to comply with the pharmaceutical industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government or otherwise restricting payments that may be made to healthcare providers; and state and foreign laws governing the privacy and security of health information in certain circumstances, many of which differ from each other in significant ways and often are not preempted by HIPAA, thus complicating compliance efforts.

Efforts to ensure that our business arrangements with third parties will comply with applicable healthcare laws and regulations will involve substantial costs. Nonetheless, it is possible that governmental authorities will conclude that our business practices may not comply with current or future statutes, regulations or case law involving applicable fraud and abuse or other healthcare laws and regulations. If our operations are found to be in violation of any of these laws or any other governmental regulations that may apply to us, we may be subject to significant civil, criminal and administrative penalties, damages, fines, imprisonment, exclusion from participation in government funded healthcare programs, such as Medicare and Medicaid, and the curtailment or restructuring of our operations.

Government agencies may establish and promulgate usage guidelines that could limit the use of our drug candidates.

Government agencies, professional and medical societies, and other groups may establish usage guidelines that apply to our drug candidates. These guidelines could address such matters as usage and dose, among other factors. Application of such guidelines could limit the clinical use or commercial appeal of our drug candidates.

Risks Relating to our Intellectual Property

Our ability to commercialize our drug candidates will depend on our ability to sell such products without infringing the patent or proprietary rights of third parties. If we are sued for infringing the intellectual property rights of third parties, such litigation will be costly and time consuming and an unfavorable outcome would have a significant adverse effect on our business.

Our ability to commercialize our drug candidates will depend on our ability to sell such products without infringing the patents or other proprietary rights of third parties. Intellectual property rights in the areas of controlled-release technology and pharmaceutical ingredients are complicated and are continuously evolving. Holders of patent rights in these areas may allege that the commercialization of REMOXY or our other drug candidates infringes such patent rights. While we believe that we would have valid defenses to any claim of infringement, there can be no assurance that these or other third-party patents will not limit our ability to commercialize REMOXY or our other drug candidates.

In addition, because patent applications are published some time after filing, and because applications can take several years to issue, there may be currently pending third-party patent applications that are unknown to us, which may later result

in issued patents. If a third-party claims that we infringe on its patents or other proprietary rights, we could face a number of issues that could seriously harm our competitive position, including:

- infringement claims that, with or without merit, can be costly and time consuming to litigate, can delay the regulatory approval process and can divert management's attention from our core business strategy;
- substantial damages for past infringement which we may have to pay if a court determines that our products or technologies infringe upon a competitor's patent or other proprietary rights;
- a court order prohibiting us from commercializing our products or technologies unless the holder licenses the patent or other proprietary rights to us, which such holder is not required to do;
- if a license is available from a holder, we may have to pay substantial royalties or grant cross licenses to our patents or other proprietary rights; and
- redesigning our process so that it does not infringe the third-party intellectual property rights, which may not be possible, or which may require substantial time and expense including delays in bringing our own products to market. Such actions could harm our competitive position and our ability to generate revenue and could result in increased costs.

If we are unable to protect our intellectual property, our competitors could develop and market products with similar features that may reduce demand for our drug candidates.

Our success, competitive position and potential future revenues will depend in part on our ability to protect our intellectual property. If we or our collaborators fail to file, prosecute, obtain or maintain certain patents, our competitors could market products that contain features and clinical benefits similar to those of our products, and demand for our products could decline as a result.

We and our collaborators have filed patent applications in the United States and select international jurisdictions to protect our intellectual property. The coverage sought in a patent application can be denied or significantly reduced before or after the patent is issued. Consequently, we do not know whether any of our pending applications will result in the issuance of patents, or if any existing or future patents will provide significant protection or commercial advantage or will be circumvented by others. There can be no assurance that patents will issue from our pending or future patent applications or, if issued, that such patents will be of commercial benefit to us, afford us adequate protection from competing products, or not be challenged or declared invalid. Thus, if these patent applications do not result in issued patents or result in a patent that is challenged by others, the duration or scope of our patent rights may be limited and our future revenues could be lower as a result.

We may be involved in challenges to our intellectual property. If our competitors are able to successfully challenge the validity or scope of our patent rights, based on the existence of prior art or otherwise, they might be able to market products that contain features and clinical benefits similar to those of our drug candidates, and demand for our drug candidates could decline as a result. An adverse outcome of a challenge to our intellectual property could result in loss of claims of patents or other intellectual property rights that pertain to certain drugs we currently have under development and could have a material adverse impact on our future revenues.

We intend to file additional patent applications relating to our technology, products and processes. We may direct our collaborators to file additional patent applications relating to the licensed technology or we may do so ourselves. However, our competitors may challenge, invalidate or circumvent any of our current or future patents. These patents may also fail to provide us with meaningful competitive advantages.

We may become involved in expensive litigation or other legal proceedings related to our existing intellectual property rights, including patents.

We expect that we will rely upon patents, trade secrets, know-how, continuing technological innovations and licensing opportunities to develop and maintain our competitive position. While we use confidentiality agreements with our employees, consultants and certain of our contractors, if trade secrets or other confidential information is made public, our business may be harmed and our legal remedies may be limited or insufficient. Others may independently develop substantially equivalent

proprietary information or be issued patents that may prevent the sale of our products or know-how or require us to license such information and pay significant fees or royalties in order to produce our products.

Our technology could infringe upon claims of patents owned by others. If we were found to be infringing on a patent held by another, we might have to seek a license to use the patented technology. In that case, we might not be able to obtain such a license on terms acceptable to us, or at all. If a legal action were to be brought against us or our licensors, we could incur substantial defense costs, and any such action might not be resolved in our favor. If such a dispute were to be resolved against us, we could have to pay the other party large sums of money and our use of our technology and the testing, manufacture, marketing or sale of one or more of our proposed products could be restricted or prohibited.

If we are unable to protect the confidentiality of our intellectual property, the value of our intellectual property could be materially adversely affected and our business would be harmed.

We seek to protect our intellectual property, in part, by confidentiality agreements with our employees, consultants, scientific advisors, contractors and collaborators. However, there can be no assurance that our intellectual property will not be disclosed or that competitors will not otherwise gain access to our intellectual property or independently develop substantially equivalent intellectual property. For example, if our confidential information were disclosed in violation of our confidentiality agreements, we may not be able to obtain adequate remedies for such breaches. We also seek to protect our intellectual property by maintaining physical security of our premises and physical and electronic security of our information technology systems, but it is possible that these security measures could be breached. If any of our intellectual property were to be lawfully obtained or independently developed by a competitor, we would have no right to prevent such competitor from using that intellectual property to compete with us, which could harm our business.

Risks Relating to our Business and Strategy

If we are not successful in attracting and retaining qualified personnel, we could experience delays in completing necessary clinical trials, in the regulatory approval process or in formulating, manufacturing, marketing and selling our potential products.

We depend on the services of our key personnel, including Remi Barbier, our Chairman, President and Chief Executive Officer. The loss of key personnel, including members of executive management as well as key bioengineering, product development, and technical personnel, could disrupt our operations and have an adverse effect on our business. We will need to hire additional qualified personnel with expertise in clinical research, preclinical testing, government regulation, formulation and manufacturing and sales and marketing. We compete for qualified individuals with numerous biopharmaceutical companies, universities and other research institutions. Competition for such individuals is intense, and our search for such personnel may not be successful. Attracting and retaining qualified personnel is critical to our success.

We have employees whose equity ownership in the Company could result in a substantial increase in personal wealth if the fair value of our common stock increases. Over time, this increase in personal wealth may make it more challenging to retain these employees.

If third-party manufacturers of our drug candidates fail to devote sufficient time and resources to our concerns, or if their performance is substandard, our clinical trials and product introductions may be delayed and our costs may be higher than expected.

We have no manufacturing facilities and have limited experience in drug product development and commercial manufacturing. We lack the resources and expertise to formulate, manufacture or test the technical performance of our drug candidates. We rely on and expect to continue to rely on a limited number of experienced personnel and a small number of contract manufacturers and other vendors to formulate, test, supply, store and distribute drug supplies for our preclinical studies and clinical trials. Our reliance on a limited number of vendors exposes us to the following risks, any of which could delay our clinical trials, and, consequently, FDA approval of our drug candidates and commercialization of our products, result in higher costs, or deprive us of potential product revenues:

- Contract commercial manufacturers, their sub-contractors or other third parties we rely on and expect to rely on, may encounter difficulties in achieving the volume of production needed to satisfy preclinical and clinical needs or commercial demand, may experience technical issues that impact quality or compliance with applicable and strictly

enforced regulations governing the manufacture of pharmaceutical products, and may experience shortages of qualified personnel to adequately staff production operations.

- Our contract manufacturers could default on their agreements with us to provide supplies or meet our requirements for commercialization of our products.
- For certain of our drug candidates, the use of alternate manufacturers may be difficult because the number of potential manufacturers that have the necessary governmental licenses to produce narcotic products is limited. Additionally, the FDA and the DEA must approve any alternative manufacturer of our products before we may use the alternative manufacturer to produce our supplies.
- It may be difficult or impossible for us to find a replacement manufacturer on acceptable terms quickly, or at all. Our contract manufacturers and vendors may not perform as agreed or may not remain in the contract manufacturing business for the time required to successfully produce, store and distribute our products.
- If any contract manufacturer makes improvements in the manufacturing process for our products, we may not own, or may have to share, the intellectual property rights to such innovation.

We may not be able to successfully develop or commercialize potential drug candidates for indications other than pain.

Our research and development activities include development of potential drug candidates for indications other than pain. We have no history of developing such drug candidates. We do not know whether any of our planned development activities will result in marketable products. We do not anticipate that our drug candidates in these areas will reach the market for at least several years, if at all.

Our employees and consultants are generally subject to confidentiality or other agreements with their former employers and they may inadvertently or otherwise violate those agreements.

Many of our employees and consultants were previously employed at universities or biotechnology or pharmaceutical companies. While we require our employees and consultants to honor any agreements they may have entered into prior to working with us, we may be subject to claims that we inadvertently or otherwise used or disclosed trade secrets or other confidential information belonging to former employers. Failure to defend such claims could result in loss of valuable rights or personnel, which in turn could harm or prevent commercialization of our drug candidates. Successful defense against such claims can be expensive and might distract us from executing our strategies.

Law enforcement concerns over diversion of opioids and social issues around abuse of opioids may make the regulatory approval process and commercialization of our drug candidates very difficult.

Law enforcement agencies or regulatory agencies may apply policies that seek to limit the availability of opioids. Such efforts may adversely affect the regulatory approval and commercialization of our drug candidates.

Developments by competitors may render our products or technologies obsolete or non-competitive.

Alternative technologies and products are being developed to improve or replace the use of opioids for pain management, several of which are in clinical trials or are awaiting approval from the FDA. In addition, the active ingredients in nearly all opioid drugs are available in generic form. Drug companies that sell generic opioid drugs represent substantial competition. Many of these organizations competing with us have substantially greater capital resources, larger research and development staffs and facilities, greater experience in drug development and in obtaining regulatory approvals and greater manufacturing and marketing capabilities than we do. Our competitors may market less expensive or more effective drugs that would compete with our drug candidates or reach market with competing drugs before we are able to reach market with our drug candidates. These organizations also compete with us to attract qualified personnel and partners for acquisitions, joint ventures or other collaborations.

Business interruptions could limit our ability to operate our business.

Our operations, as well as those of our collaborators on which we depend, are vulnerable to damage or interruption from computer viruses, human error, natural disasters, electrical and telecommunication failures, international acts of terror and similar events. We have not established a formal disaster recovery plan and our back-up operations and our business interruption insurance may not be adequate to compensate us for losses we may suffer. A significant business interruption could result in losses or damages incurred by us and require us to cease or curtail our operations.

Unfavorable media coverage of opioid pharmaceuticals could negatively affect our business.

Opioid drug abuse receives a high degree of media coverage. Unfavorable publicity regarding, for example, the use or misuse of oxycodone or other opioid drugs, the limitations of ADFs, public inquiries and investigations into prescription drug abuse, litigation or regulatory activity could adversely affect our reputation. Such negative publicity could have an adverse effect on the potential size of the market for our drug candidates and decrease revenues and royalties, which would adversely affect our business and financial results.

Risks Relating to Manufacturing

We do not own any manufacturing facilities and we rely on third-party commercial drug manufacturers for drug supply.

We do not own any manufacturing facilities. We plan to continue to outsource formulation, manufacturing and related activities.

We rely on a limited number of third-party suppliers to formulate, manufacture, fill, label, ship or store all of our drug candidates. These suppliers must comply with current good manufacturing practices, or GMP, regulations enforced by the FDA and other government agencies and DEA regulations, and are subject to ongoing periodic unannounced inspection, including preapproval inspections by the FDA and DEA and corresponding state and foreign government agencies to ensure strict compliance with GMP and other government regulations and corresponding foreign standards. These manufacturers may subsequently be stopped from producing, storing, shipping or testing our drug products due to their non-compliance with federal, state or local regulations. We do not have control over our suppliers' compliance with these regulations and standards.

If REMOXY is approved, our commercial suppliers may encounter difficulties in achieving high volumes of production to satisfy commercial demands.

We cannot control decisions by our suppliers that affect their ability or willingness to continue to supply us on acceptable terms, or at all.

We may not be able to replace a commercial supplier on commercially reasonable terms, or at all. Replacing any of our commercial suppliers would be expensive and time consuming.

Failure by any of our suppliers to perform as expected could delay or prevent commercialization of REMOXY or result in shortages, cost overruns, or other problems and would materially harm our business.

We will rely on Durect as the sole source of certain excipients in REMOXY. Durect has limited experience manufacturing pharmaceutical products and maintaining GMP-compliant operations. We currently do not have a long-term commercial supply agreement in place with Durect. We expect that we and Durect will negotiate a supply agreement for these excipients. We may not be able to establish a commercial supply agreement on acceptable terms, or at all.

If we receive marketing approval for and commercially launch REMOXY, Durect may need to materially expand its manufacturing capacity. Durect may not be able to increase its manufacturing capacity for REMOXY in a timely or economic manner, or at all. Moreover, significant scale up of manufacturing will require additional validation studies, which are subject to FDA review and approval. If Durect is unable to successfully increase the manufacturing capacity, at an acceptable cost or otherwise, and we are unable to establish alternative manufacturing capabilities, there may be a shortage in supply, which would harm our future revenues and cause our business to suffer.

If Durect fails to supply excipients to us, they may be in breach of their supply obligations. With or without a commercial supply agreement, Durect's failure for any reason to supply these excipients, including failure resulting from Durect relying on sole source providers, could delay or prevent commercialization of REMOXY or result in shortages, delays, unexpected costs or other problems and would materially harm our business.

We expect to rely on Noramco as the sole source of the oxycodone in REMOXY. We currently do not have a long-term commercial supply agreement in place with Noramco. Effective July 1, 2016, Noramco is owned by SK Capital Partners, a private investment firm. We expect to negotiate with Noramco a commercial supply agreement to supply us with oxycodone.

We may not be able to establish a commercial supply agreement on acceptable terms, or at all. Until we have a commercial supply agreement in place with Noramco, we expect to obtain oxycodone from Noramco via purchase orders. There can be no assurance that Noramco will accept our purchase orders on acceptable terms, or at all. With or without a commercial supply agreement, Noramco's failure for any reason to supply us with oxycodone could delay or prevent commercialization of REMOXY or result in shortages, cost overruns or other problems that would materially harm our business.

We will need to identify a third-party to manufacture commercial supplies of REMOXY. Without a commercial manufacturer, we may not be able commercialize REMOXY. To date, we have not identified such third-party manufacturer and we may never find a viable source of commercial supplies of REMOXY. We expect to rely on such third party as the sole-source drug product manufacturer of REMOXY pursuant to a supply agreement. In addition to drug product manufacturing, this third-part manufacturer will need to be responsible for sourcing excipients in REMOXY other than those provided by the Durect Agreement. Failure for any reason to manufacture and supply REMOXY could delay or prevent commercialization of REMOXY or result in shortages, product recalls or withdrawals, delays or failures in product testing or delivery, cost overruns or other problems that would materially harm our business.

If we cannot formulate and scale-up additional dosage forms of REMOXY, the commercial opportunity for REMOXY might be diminished.

We plan to formulate and scale-up additional dosage forms of REMOXY. We may not be able to successfully complete our formulation or scale-up activities or we may determine that the commercial opportunity for REMOXY in certain dosage forms is too limited to warrant further investment. If we are unsuccessful in our formulation or scale-up activities with REMOXY, our future revenue may be less than expected and our operations may suffer.

We rely solely on Durect to provide us with certain components of drug candidates and will continue to rely on Durect as the sole-source provider of these components.

We rely on Durect as the sole-source provider of certain components of REMOXY and other drug candidates designed to reduce the potential risks of unintended use, and will rely solely on Durect to produce commercial supplies of these components. Durect's failure for any reason to provide these components or to achieve and maintain satisfactory manufacturing standards could result in product recalls or withdrawals, delays or failures in product testing or delivery, cost overruns or other problems that could materially harm our business.

Durect may encounter manufacturing difficulties involving production yields, quality control and quality assurance. Durect is subject to ongoing periodic unannounced inspection by the FDA and corresponding state and foreign agencies to ensure strict compliance with government regulations and corresponding foreign standards. We cannot control Durect's compliance with these regulations and standards.

If we receive marketing approval for and commercially launch REMOXY, Durect may need to materially expand its manufacturing capacity. Durect may not be able to increase its manufacturing capacity for REMOXY in a timely or economic manner, or at all. Moreover, significant scale up of manufacturing will require additional validation studies, which are subject to FDA review and approval. If Durect is unable to successfully increase the manufacturing capacity for such components of REMOXY, at an acceptable cost or otherwise, and we are unable to establish alternative manufacturing capabilities, commercialization of REMOXY may be delayed, prevented or impaired or there may be a shortage in supply, which would harm our future revenues and cause our business to suffer.

We expect to rely on Noramco as the sole source of the oxycodone in REMOXY.

We expect to rely on Noramco as the sole source of the oxycodone in REMOXY. We expect we and Noramco will negotiate a supply agreement to supply us with the oxycodone in REMOXY. Noramco's operation is subject to regulation by the DEA and the Controlled Substances Act. Noramco's failure for any reason to manufacture and supply us with the oxycodone in REMOXY could result in shortages, cost overruns or other problems that could materially harm our business.

Risks Relating to our Financial Position and Need for Financing

Our operating history may make it difficult for you to evaluate our business to date and to assess its future viability.

Our operations from our inception to date have been limited to organizing and staffing our company, acquiring, developing and securing our technology, undertaking preclinical studies and clinical trials of our drug candidates and forming

collaborations. We have not yet demonstrated our ability to obtain regulatory approval, formulate and manufacture our drug candidates on a commercial scale or conduct sales and marketing activities. Consequently, any predictions you make about our future success or viability may not be as accurate as they could be if we had a longer operating history.

We have a history of losses and expect to incur substantial losses and negative operating cash flows for the foreseeable future.

Although we were profitable in some years in the past based on payments received pursuant to collaboration agreements and interest income, we have yet to generate any revenues from product sales. We have an accumulated deficit of \$145.5 million at December 31, 2016. Even if we succeed in developing and commercializing one or more of our drug candidates, we expect to continue to use significant cash resources in our operations for the foreseeable future.

We anticipate that our expenses will increase substantially in the foreseeable future as we:

- continue to conduct preclinical studies and clinical trials for our drug candidates, including drug development activities related to FENROCK;
- seek regulatory approvals for our drug candidates;
- develop, formulate, manufacture and commercialize our drug candidates;
- implement additional internal systems and develop new infrastructure;
- acquire or in-license additional products or technologies, or expand the use of our technology;
- maintain, defend and expand the scope of our intellectual property; and
- hire additional personnel.

We will need to generate significant revenues to achieve and maintain profitability. If we or our collaborators cannot successfully develop, obtain regulatory approval for and commercialize our drug candidates, we will not be able to generate such revenues or achieve profitability in the future. Our failure to achieve or maintain profitability would have a material adverse impact on the market price of our common stock.

If we cannot raise additional capital on acceptable terms, we may be unable to complete planned clinical trials of any or some of our drug candidates or to pursue attractive business opportunities.

We have funded all of our operations and capital expenditures with the proceeds from our public and private stock offerings, payments received under collaboration agreements and interest earned on our investments. We expect that our current cash, cash equivalents and marketable securities will be sufficient to meet our working capital and capital expenditure needs for at least the next twelve months. However, we may elect to raise additional funds within such twelve-month period or need to raise additional funds thereafter and additional financing may not be available on favorable terms, if at all. Even if we succeed in selling additional securities to raise funds, our existing stockholders' ownership percentage would be reduced and new investors may demand rights, preferences or privileges senior to those of existing stockholders. If we raise additional capital through debt financing, if available, such financings may involve covenants that restrict our business activities. If we raise additional capital through strategic alliance and license arrangements, we may have to trade our rights to our technology, intellectual property or drug candidates to others in such arrangements on terms that may not be favorable to us.

If we determine that we need to raise additional funds and we are not successful in doing so, we may be unable to complete the clinical development of some or all of our drug candidates or to seek or obtain FDA approval of our drug candidates. We then could be forced to discontinue product development, enter into a relationship with an additional strategic partner earlier than currently intended, reduce sales and marketing efforts or forego attractive business opportunities.

Risks Relating to an Investment in our Common Stock

Our stock price has been volatile and could experience a sudden decline in value.

Our common stock has experienced significant price and volume fluctuations and may continue to experience volatility in the future. You may not be able to sell your shares quickly or at the latest market price if trading in our stock is not active

or the volume is low. The following factors, in addition to other risk factors described in this section, may have a significant impact on the market price of our common stock:

- results of or delays in efforts to seek regulatory approval for REMOXY, and in preclinical studies and clinical trials for our other drug candidates;
- publicity regarding products under development by us or others, including with respect to actual or potential medical results relating to such matters;
- announcements of technological innovations or new commercial products by us or others;
- developments in patent or other proprietary rights by us or others;
- comments or opinions by securities analysts or major stockholders;
- adverse media coverage related to opioid pharmaceuticals;
- future sales of our common stock by existing stockholders;
- developments with respect to potential merger and acquisition activity of companies with whom we have strategic alliances or other agreements;
- regulatory developments or changes in regulatory guidance enacted by applicable governmental or other authorities;
- litigation, including with respect to the lawsuit currently filed against us and our officers, or threats of litigation;
- economic and other external factors or other disaster or crises;
- the departure of any of our officers, directors or key employees;
- period-to-period fluctuations in financial results; and
- limited daily trading volume.

Changing laws, regulations and standards relating to corporate governance and public disclosure, including the Sarbanes-Oxley Act of 2002, the Dodd-Frank Act of 2010, SEC regulations and the rules of The NASDAQ Stock Market LLC, or Nasdaq, create uncertainty for public companies.

If we fail to meet continued listing standards of NASDAQ, our common stock may be delisted, which could have a material adverse effect on the liquidity of our common stock.

On November 16, 2016, we received a letter from the Listing Qualifications staff of Nasdaq (the “Staff”) notifying us that, for the previous 30 consecutive business days, the bid price for our common stock had closed below the minimum \$1.00 per share requirement (the “Minimum Price Requirement”) under NASDAQ’s Listing Rule 5450(a)(1) for continued listing on The Nasdaq Global Market. In accordance with Nasdaq Listing Rule 5810(c)(3)(A), if during the 180 calendar days following the date of the notification, or prior to May 15, 2017, the closing bid price of our common stock is at or above \$1.00 for a minimum of 10 consecutive business days, the Staff will provide us with written confirmation of compliance.

We intend to monitor the closing bid price of our common stock and may, if appropriate, consider implementing available options to regain compliance with the Minimum Price Requirement. If we do not achieve compliance with the Minimum Price Requirement by May 15, 2017, we may be eligible for an additional 180 calendar day compliance period if we elect to transfer the listing of our common stock to the Nasdaq Capital Market, in order to take advantage of the additional compliance period offered on that market. To qualify, we would be required to meet the continued listing requirement for market value of publicly held shares and all other initial listing standards for the Nasdaq Capital Market, with the exception of the bid price requirement, and would need to provide written notice of our intention to cure the deficiency during the second compliance period. However, if it appears to the Staff that we will not be able to cure the deficiency, or if we are otherwise not eligible, the Staff would notify us that our common stock would be subject to delisting. In the event of such notification, we may appeal the Staff’s determination to delist our common stock, which will defer the delisting process until after an appeal hearing. There can be no assurance such an appeal would be successful.

If we were unable to comply with these requirements, we could be delisted from trading on Nasdaq, and thereafter trading in our common stock, if any, may be conducted through the over-the-counter or other market. As a consequence of such delisting, an investor would likely find it more difficult to dispose of, or to obtain quotations as to the price of, our common stock. Delisting of our common stock could also result in lower prices per share of our common stock than would otherwise prevail.

Anti-takeover provisions in our charter documents and Delaware law may prevent or delay removal of incumbent management or a change of control.

Anti-takeover provisions of our amended and restated certificate of incorporation and amended and restated bylaws and Delaware law may have the effect of deterring or delaying attempts by our stockholders to remove or replace management, engage in proxy contests and effect changes in control. The provisions of our charter documents include:

- a classified board so that only one of the three classes of directors on our board of directors is elected each year;
- elimination of cumulative voting in the election of directors;
- procedures for advance notification of stockholder nominations and proposals;
- the ability of our board of directors to amend our bylaws without stockholder approval; and
- the ability of our board of directors to issue up to 10,000,000 shares of preferred stock without stockholder approval upon the terms and conditions and with the rights, privileges and preferences as our board of directors may determine.

In addition, as a Delaware corporation, we are subject to Delaware law, including Section 203 of the Delaware General Corporation Law. In general, Section 203 prohibits a Delaware corporation from engaging in any business combination with any interested stockholder for a period of three years following the date that the stockholder became an interested stockholder unless certain specific requirements are met as set forth in Section 203.

These provisions, alone or together, could have the effect of deterring or delaying changes in incumbent management, proxy contests or changes in control.

Our share ownership is concentrated, and our officers, directors and principal stockholders can exert significant control over matters requiring stockholder approval.

Due to their combined stock holdings, our officers, directors and principal stockholders (stockholders holding greater than 5% of our common stock) acting collectively may have the ability to exercise significant influence over matters requiring stockholder approval including the election of directors and approval of significant corporate transactions. In particular, Remi Barbier, our founder, Chairman of the Board of Directors, President and Chief Executive Officer, owns or controls a significant amount of the voting power of our outstanding capital stock. This concentration of ownership may delay or prevent a change in control of the Company and may make some transactions, including but not limited to any merger, consolidation, or sale of substantially all of our assets, more difficult or impossible to complete without the support of key stockholders.

Publicly available information regarding stockholders' ownership may not be comprehensive because the SEC does not require certain large stockholders to publicly disclose their stock ownership positions.

If the fair value of our stock increases and outstanding Performance Awards vest, we expect to use substantial amounts of cash to fund employee tax liabilities.

We have Performance Awards outstanding. If these Performance Awards vest, we expect to issue our employees shares of our common stock net of statutory employment taxes. This net issuance results in fewer shares issued and uses our cash to fund these taxes. The use of cash could be substantially higher, depending on the fair value of our common stock on the date the Performance Awards vest. If our use of cash to fund these taxes is substantial, our cash balance could substantially decline and our stock price could also decline.

We may in the future seek to fund the cash used for Performance Awards through the sale of our common stock. However, we may not be successful in selling shares of our common stock to fund the cash used for Performance Awards. If the number of shares we sell to fund the cash used for Performance awards is significant, our stock price could decline.

Volatility in the stock prices of other companies may contribute to volatility in our stock price.

The stock market in general, Nasdaq and the market for technology companies in particular, have experienced significant price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of those companies. Further, there has been particular volatility in the market prices of securities of early stage life sciences companies. These broad market and industry factors may seriously harm the market price of our common stock, regardless of our operating performance. In the past, following periods of volatility in the market price of a company's securities, securities class action

litigation has often been instituted. A securities class action suit against us could result in substantial costs, potential liabilities and the diversion of management's attention and resources.

Our operating results may fluctuate from quarter to quarter and this fluctuation may cause our stock price to decline.

Our quarterly operating results have fluctuated in the past and are likely to fluctuate in the future. Factors contributing to these fluctuations include, among other items, the timing and enrollment rates of clinical trials for our drug candidates, our need for clinical supplies and the valuation of stock-based compensation. Thus, quarter-to-quarter comparisons of our operating results may not be indicative of what we might expect in the future. As a result, in some future quarters our clinical, financial or operating results may not meet the expectations of securities analysts and investors and could result in a decline in the price of our stock.

If securities or industry analysts publish inaccurate or unfavorable research about our business or product candidates, our stock price could decline.

Securities or industry analysts publish research and reports about our business or product candidates. An analyst's conclusions regarding prospects for product candidates in the biopharmaceutical industry can include judgments based on the limited publicly-available data. If one or more analysts issues unfavorable research about our business or our product candidates, including a downgrade of our common stock, the price of our stock may decline.

Our stockholders will experience substantial additional dilution if we sell common stock under our at-the-market equity program.

As of December 31, 2016, there were 10.0 million shares available for issuance under the Capital on Demand Sales Agreement™ with JonesTrading Institutional Services, LLC, or the ATM Agreement. The sale of additional shares of common stock under the ATM Agreement would be dilutive to the outstanding shares of common stock. Dilution or potential dilution may contribute to our stockholders selling their shares, which would contribute to a downward movement in the stock price of our common stock.

There may not be an active, liquid trading market for our common stock.

There is no guarantee that an active trading market for our common stock will be maintained on Nasdaq. Investors may not be able to sell their shares quickly or at the latest market price if trading in our stock is not active.

Item 1B. *Unresolved Staff Comments*

None.

Item 2. *Properties*

We lease approximately 6,000 square feet of office space pursuant to a non-cancelable operating lease in Austin, TX that expires in December 2017. We believe that our facilities are adequate and suitable for our current needs.

Item 3. *Legal Proceedings*

KB Partners I, L.P., Individually and On Behalf of All Others Similarly Situated v. Pain Therapeutics, Inc., Remi Barbier, Nadav Friedmann and Peter S. Roddy, No. 11-cv-01034 (W.D. Tex.)

On December 2, 2011, a purported class action was filed against us and our executive officers in the U.S. District Court for the Western District of Texas alleging, among other things, violations of Section 10(b), Rule 10b-5, and Section 20(a) of the Exchange Act. At a preliminary settlement conference on September 1, 2016, the Court approved a Stipulated Settlement Agreement. Following a hearing on December 16, 2016, the Court issued its final approval for the Stipulated Settlement Agreement and administratively closed the docket.

Item 4. Mine Safety Disclosures

Not applicable.

PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Our common stock is quoted on Nasdaq, under the symbol "PTIE." The following table sets forth the high and low sales prices per share of our common stock as reported on Nasdaq for the periods indicated.

| | Sales Prices | |
|---------------------|--------------|---------|
| | High | Low |
| Fiscal 2015: | | |
| First Quarter | \$ 2.25 | \$ 1.65 |
| Second Quarter | \$ 3.65 | \$ 1.60 |
| Third Quarter | \$ 2.06 | \$ 1.53 |
| Fourth Quarter | \$ 2.02 | \$ 1.72 |
| Fiscal 2016: | | |
| First Quarter | \$ 2.40 | \$ 1.55 |
| Second Quarter | \$ 2.63 | \$ 1.95 |
| Third Quarter | \$ 3.00 | \$ 0.96 |
| Fourth Quarter | \$ 1.04 | \$ 0.51 |

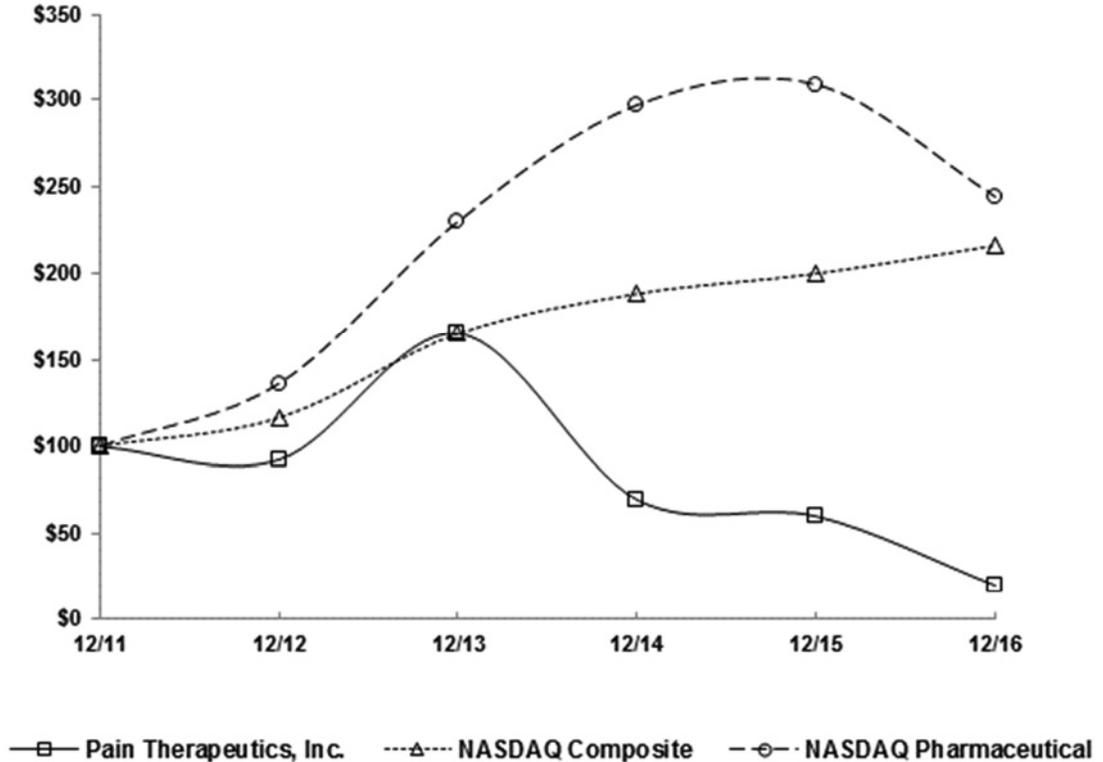
We currently expect to retain future earnings, if any, for use in the operation and expansion of our business and, notwithstanding our special nondividend distributions in December 2012 (of \$0.75 per share of common stock totaling \$34.0 million) and December 2010 (of \$2.00 per share of common stock totaling \$85.7 million), we have not paid and do not anticipate paying any cash dividends in the foreseeable future. As of January 12, 2017, there were approximately 47 holders of record of our common stock.

Performance Graph

The following line graph compares the percentage change in the cumulative return to the stockholders of our common stock with the cumulative return of the NASDAQ Composite Index and the NASDAQ Pharmaceutical Index for the period commencing December 31, 2011.

COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN

Among Pain Therapeutics, Inc., the NASDAQ Composite Index and the NASDAQ Pharmaceutical Index



The graph assumes that \$100 was invested on December 31, 2011 in our common stock or an index, and that all dividends were reinvested. We have not declared or paid any dividends on our common stock other than the special nondividend distributions completed in 2012 and 2010. Stockholder returns over the indicated period should not be considered indicative of future stockholder returns.

Item 6. Selected Financial Data (in thousands except per share data)

The following selected financial data should be read together with the “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and our financial statements and related notes included elsewhere in this report. The selected balance sheet data at December 31, 2016 and 2015 and the selected statement of operations data for 2016, 2015 and 2014 have been derived from our audited financial statements that are included elsewhere in this report. The selected balance sheet data at December 31, 2014, 2013 and 2012 and the statements of operations for 2013 and 2012 have been derived from our audited financial statements not included in this report. Historical results are not necessarily indicative of the results to be expected in the future.

| | Years ended December 31, | | | | |
|---|--------------------------|-------------|-------------|-----------|------------|
| | 2016 | 2015 | 2014 | 2013 | 2012 |
| Statement of operations data: | | | | | |
| Program fee revenue | \$ — | \$ — | \$ — | \$ 41,119 | \$ 10,641 |
| Collaboration revenue | — | — | — | — | 249 |
| Total revenue | — | — | — | 41,119 | 10,890 |
| Research and development expense | 9,176 | 9,100 | 7,306 | 4,917 | 7,605 |
| General and administrative expense | 5,781 | 5,102 | 5,127 | 4,837 | 7,182 |
| Total operating expenses | 14,957 | 14,202 | 12,433 | 9,754 | 14,787 |
| Operating income (loss) | (14,957) | (14,202) | (12,433) | 31,365 | (3,897) |
| Interest and other income, net | 107 | 57 | 47 | 106 | 451 |
| Income (loss) before provision for (benefit from) income taxes | (14,850) | (14,145) | (12,386) | 31,471 | (3,446) |
| Provision for (benefit from) income taxes | — | — | — | (73) | — |
| Net income (loss) | \$ (14,850) | \$ (14,145) | \$ (12,386) | \$ 31,544 | \$ (3,446) |
| Net income (loss) per share | | | | | |
| Basic | \$ (0.33) | \$ (0.31) | \$ (0.27) | \$ 0.70 | \$ (0.08) |
| Diluted | \$ (0.33) | \$ (0.31) | \$ (0.27) | \$ 0.70 | \$ (0.08) |
| Weighted-average shares used in computing net income (loss) per share | | | | | |
| Basic | 45,638 | 45,356 | 45,269 | 45,007 | 44,753 |
| Diluted | 45,638 | 45,356 | 45,269 | 45,208 | 44,753 |

| | December 31, | | | | |
|------------------------------|--------------|-----------|-----------|-----------|-----------|
| | 2016 | 2015 | 2014 | 2013 | 2012 |
| Balance sheet data: | | | | | |
| Cash and cash equivalents | \$ 16,615 | \$ 31,299 | \$ 40,590 | \$ 48,588 | \$ 49,355 |
| Marketable securities | 2,099 | — | — | 1,250 | 6,899 |
| Working capital | 18,405 | 29,140 | 39,979 | 48,302 | 46,508 |
| Total assets | 19,302 | 31,918 | 40,906 | 50,103 | 56,859 |
| Deferred program fee revenue | — | — | — | — | 41,119 |
| Total liabilities | 665 | 2,551 | 850 | 1,801 | 43,723 |
| Total stockholders' equity | 18,637 | 29,367 | 40,056 | 48,302 | 13,136 |

Item 7. *Management's Discussion and Analysis of Financial Condition and Results of Operations*

This discussion and analysis should be read in conjunction with our financial statements and accompanying notes included elsewhere in this report. Operating results are not necessarily indicative of results that may occur in future periods.

Overview

Pain Therapeutics, Inc. develops proprietary drugs that offer significant improvements to patients and healthcare professionals. We generally focus our drug development efforts on disorders of the nervous system, such as chronic pain.

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

For over a decade, we have pioneered technology, tools and techniques that enable the development of Abuse-Deterrent Formulations, or ADFs. ADFs are intended to make opioid drugs difficult to abuse yet provide steady pain relief when used appropriately by patients. ADFs are intended to help in the fight against prescription drug abuse.

Opioid drugs, such as oxycodone, are an important treatment option for patients with severe chronic pain. However, misuse, abuse and diversion of these prescription drugs remains a serious, persistent problem. Nearly 19,000 people died from opioid overdose in 2014, according to the NIH's National Institute on Drug Abuse.

Our lead drug candidate is called REMOXY, a proprietary, abuse-deterrent, oral, extended-release formulation of oxycodone (CII). We developed REMOXY to make oxycodone difficult to abuse yet provide 12 hours of steady pain relief when used appropriately by patients.

In particular, REMOXY's thick, sticky, high-viscosity formulation may deter unapproved routes of drug administration. REMOXY targets the multi-billion dollar marketplace for long-acting formulations of oxycodone. We own exclusive, worldwide rights to REMOXY.

In March 2016, we resubmitted to the FDA the NDA for REMOXY. In April 2016, the FDA determined that the NDA for REMOXY was sufficiently complete to permit a substantive review. On May 19, 2016, we announced that the FDA planned to hold an Advisory Committee meeting to review the NDA for REMOXY. On July 1, 2016, we announced that the FDA had determined that an Advisory Committee meeting for REMOXY was unnecessary and would not be held.

In September 2016, we received a CRL from the FDA on the resubmission of NDA for REMOXY. The CRL informed us that the NDA for REMOXY could not be approved in its present form and specifies additional actions and data that are needed for drug approval. The CRL focuses on the abuse-deterrent properties of REMOXY and proposed drug labeling. The CRL makes no mention of clinical safety, drug efficacy, manufacturing, stability, bioequivalence or any other issues from a prior Complete Response Letter.

The CRL focuses on the actions and studies that are needed in order to obtain approval of REMOXY. In conducting the following studies, we expect to generally compare REMOXY with one or more commercially available oxycodone ER drug product:

- To support a potential drug label claim against abuse by injection: Repeat an injectability/syringeability study using thin films of drug, smaller volumes of solvents, additional mixed solvents and alternative extraction methods and syringe filter.
- To support a potential drug label claim against abuse by snorting: Conduct an intranasal abuse potential study in human volunteers.

In addition, we had proposed in the REMOXY NDA a label claim against abuse by chewing. Our proposal was based on clinical results of an oral human abuse potential study that met all four co-primary endpoints with statistical significance and that also met several, but not all, secondary endpoints. The CRL asks us to submit a revised proposed label to indicate results of this study do not support a label claim against abuse by chewing.

On February 13, 2017, we met with the FDA regarding REMOXY. During this meeting, we reached agreement with the FDA on a roadmap to resubmit the NDA for REMOXY. We expect to disclose details of this meeting, including timelines and additional data to be developed, after minutes of the meeting are issued.

The NDA includes five dosage strengths of REMOXY (5, 10, 20, 30, 40 mg). The proposed indication for REMOXY is “for the management of pain severe enough to require daily, around-the-clock, long-term opioid treatment and for which alternative treatment options are inadequate.”

The safety and clinical efficacy of REMOXY is supported by multiple studies, including a successful Phase III efficacy program conducted under a Special Protocol Assessment, or SPA.

We have yet to generate any revenues from product sales. We have an accumulated deficit of \$145.5 million at December 31, 2016. 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. Research and development activities include costs of preclinical and clinical trials as well as clinical supplies associated with our drug candidates. Salaries and other personnel-related costs include non-cash stock-based compensation associated with options and other equity awards granted to employees and non-employees. Our operating results may fluctuate substantially from period to period as a result of the timing of preclinical activities, enrollment rates of clinical trials for our drug candidates and our need for clinical supplies.

We expect to continue to use significant cash resources in our operations for the next several years. Our cash requirements for operating activities and capital expenditures may increase substantially in the future as we:

- conduct preclinical and clinical trials for our drug candidates;
- seek regulatory approvals for our drug candidates;
- develop, formulate, manufacture and commercialize our drug candidates;
- implement additional internal systems and develop new infrastructure;
- acquire or in-license additional products or technologies, or expand the use of our technology;
- maintain, defend and expand the scope of our intellectual property; and
- hire additional personnel.

Product revenue will depend on our ability to receive regulatory approvals for, and successfully market, our drug candidates. If our development efforts result in regulatory approval and successful commercialization of our drug candidates, we will generate revenue from direct sales of our drugs and/or, if we license our drugs to future collaborators, from the receipt of license fees and royalties from sales of licensed products. We conduct our research and development programs through a combination of internal and collaborative programs. We rely on arrangements with universities, our collaborators, contract research organizations and clinical research sites for a significant portion of our product development efforts.

We focus substantially all our research and development efforts on research and development in the areas of neurology. The following table summarizes expenses by category for research and development efforts (in thousands):

| | Years ended December 31, | | |
|------------------------------|--------------------------|-----------------|-----------------|
| | 2016 | 2015 | 2014 |
| Compensation | \$ 3,561 | \$ 2,599 | \$ 3,468 |
| Contractor fees and supplies | 4,842 | 5,684 | 3,118 |
| Other common costs | 773 | 817 | 720 |
| | <u>\$ 9,176</u> | <u>\$ 9,100</u> | <u>\$ 7,306</u> |

Contractor fees and supplies generally include expenses for preclinical studies and clinical trials and costs for formulation and manufacturing activities. Other common costs include the allocation of common costs such as facilities.

Our technology has been applied across certain of our portfolio of drug candidates. Data, know-how, personnel, clinical results, research results and other matters related to the research and development of any one of our drug candidates also relate to, and further the development of, our other drug candidates. As a result, costs allocated to a specific drug candidate may not necessarily reflect the actual costs surrounding research and development of that drug candidate due to cross application of the foregoing.

Estimating the dates of completion of clinical development, and the costs to complete development, of our drug candidates would be highly speculative, subjective and potentially misleading. Pharmaceutical products take a significant amount of time to research, develop and commercialize. The clinical trial portion of the development of a new drug alone usually spans several years. We expect to reassess our future research and development plans based on our review of data we receive from our current research and development activities. The cost and pace of our future research and development activities are linked and subject to change.

On December 2, 2011, a purported class action was filed against us and our executive officers in the U.S. District Court for the Western District of Texas alleging, among other things, violations of Section 10(b), Rule 10b-5, and Section 20(a) of the Exchange Act. At a preliminary settlement conference on September 1, 2016, the Court approved a Stipulated Settlement Agreement. Following a hearing on December 16, 2016, the Court issued its final approval for the Stipulated Settlement Agreement and administratively closed the docket.

Critical Accounting Policies

The preparation of our financial statements in accordance with United States generally accepted accounting principles requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues, expenses and interest income in our financial statements and accompanying notes. We evaluate our estimates on an ongoing basis, including those estimates related to agreements, research collaborations and investments. We base our estimates on historical experience and various other assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions. The following items in our financial statements require significant estimates and judgments:

- *Stock-based compensation.* We recognize non-cash expense for the fair value of all stock options and other share-based awards. We use the Black-Scholes option valuation model to calculate the fair value of stock options, using the single-option award approach and straight-line attribution method. For options granted to employees and directors, we recognize the resulting fair value as expense on a straight-line basis over the vesting period of each respective stock option, generally four years. For options granted to non-employees, we remeasure the fair value expense using Black-Scholes each reporting period.

We have granted share-based awards that vest upon achievement of certain performance criteria, or Performance Awards. We multiply the number of Performance Awards by the fair market value of our common stock on the date of grant to calculate the fair value of each award. We estimate an implicit service period for achieving performance criteria for each award. We recognize the resulting fair value as expense over the implicit service period when we conclude that achieving the performance criteria is probable. We periodically review and update as appropriate our estimates of implicit service periods and determinations on achievement of the performance criteria. Performance Awards vest and common stock is issued upon achievement of the performance criteria.

- *Income Taxes.* We make estimates and judgments in determining the need for a provision for income taxes, including the estimation of our taxable income or loss for each full fiscal year. We have accumulated significant deferred tax assets that reflect the tax effects of net operating loss and tax credit carryovers and temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. Realization of deferred tax assets is dependent upon future earnings, if any. We are uncertain as to the timing and amount of any future earnings. Accordingly, we offset these deferred tax assets with a valuation allowance. We may in the future determine that our deferred tax assets will likely be realized, in which case we will reduce our valuation allowance in the quarter in which such determination is made. If the valuation allowance is reduced, we may recognize a benefit from income taxes in our statement of operations in that period. We classify interest recognized in connection with our tax positions as interest expense, when appropriate.

Results of Operations

Years Ended December 31, 2016 and 2015

Research and Development Expense

Research and development expense consists primarily of costs of drug development work associated with our drug candidates, including:

- preclinical testing,
- clinical trials,
- clinical supplies and related formulation and design costs, and
- compensation and other personnel-related expenses.

Research and development expenses increased to \$9.2 million in 2016 from \$9.1 million in 2015, primarily due to an increase in non-cash stock related compensation in 2016 compared to 2015, offset in part by receipt of NIH grant funding. During 2016, we received \$1.5 million pursuant to an NIH grant that we recorded as a reduction to our research and development expenses.

Research and development expenses in 2016 included \$1.8 million in non-cash stock related compensation expense, including non-cash expense related to vesting of stock options and vesting of Performance Awards associated with the REMOXY NDA resubmission. Research and development expenses in 2015 included \$1.2 million in non-cash stock related compensation expense related to vesting of stock options.

We expect research and development expense to fluctuate over the next several years as we continue our development efforts. We expect our development efforts to result in our drug candidates progressing through various stages of clinical trials. Our research and development expenses may fluctuate from period to period due to the timing and scope of our development activities and the results of clinical trials and preclinical studies.

General and Administrative Expense

General and administrative expense consists primarily of compensation and other general corporate expenses. General and administrative expense increased to \$5.8 million in 2016 from \$5.1 million in 2015 primarily due to an increase in non-cash stock related compensation in 2016 compared to 2015.

General and administrative expenses in 2016 included \$2.6 million in non-cash stock related compensation expense, including non-cash expense related to vesting of stock options and vesting of Performance Awards associated with the REMOXY NDA resubmission. General and administrative expenses in 2015 included \$2.3 million in non-cash stock related compensation expense.

We expect other general and administrative expense to increase over the next several years in connection with support of precommercialization and commercialization activities for our drug candidates. The increase may fluctuate from period to period due to the timing and scope of these activities and the results of clinical trials and preclinical studies.

Interest Income

Interest and other income, net, was \$0.1 million in both 2016 and 2015. We expect our interest income to decrease in the future as we use cash to fund our operations.

Years Ended December 31, 2015 and 2014

Research and Development Expense

Research and development expense consists primarily of costs of development work associated with our drug candidates. Research and development expenses increased to \$9.1 million in 2015 from \$7.3 million in 2014, primarily due to increased third-party spending on preparing the NDA resubmission for REMOXY. During 2015, we received \$0.2 million pursuant to

an NIH grant that we recorded as a reduction to our research and development expenses. Research and development expenses included \$1.2 million in non-cash stock related compensation expense in 2015 and \$1.6 million in non-cash stock related compensation expense in 2014.

General and Administrative Expense

General and administrative expense consists primarily of compensation and other general corporate expenses. General and administrative expense was \$5.1 million in both 2015 and 2014. General and administrative expenses included \$2.3 million in non-cash stock related compensation expense in 2015 and \$2.1 million in non-cash stock related compensation expense in 2014.

Interest Income

Interest and other income, net, was \$0.1 million in both 2015 and 2014. We expect our interest income to decrease in the future as we use cash to fund our operations.

Liquidity and Capital Resources

Since inception, we have financed our operations primarily through public and private stock offerings, payments received under collaborative agreements and interest earned on our investments. We intend to continue to use our capital resources to fund research and development activities, capital expenditures, working capital requirements and other general corporate purposes. As of December 31, 2016, cash, cash equivalents and marketable securities were \$18.7 million.

Net cash used in operating activities increased to \$12.2 million for 2016 from \$9.1 million for 2015 primarily due to lower accounts payable and accrued expenses at the end of 2016 compared to the end of 2015.

Net cash used by investing activities was \$2.2 million for 2016 compared to \$0.2 million for 2015. Investing activities for both years consisted primarily of the purchase and maturities of marketable securities.

Net cash used by financing activities of \$0.3 million in 2016 resulted primarily from issuing shares of our common stock to employees for vested Performance Awards net of statutory employment taxes.

Realization of our deferred tax assets is dependent on future earnings, if any. We are uncertain about the timing and amount of any future earnings. Accordingly, we offset these net deferred tax assets with a valuation allowance.

We lease approximately 6,000 square feet of office space pursuant to a non-cancelable operating lease in Austin, TX that expires in 2017. Future minimum lease payments are \$0.1 million in 2017.

We have license agreements that require us to make milestone payments upon the successful achievement of milestones, including clinical milestones. Our license agreements also require us to pay certain royalties to our licensors if we succeed in fully commercializing products under these license agreements. All of these potential future payments are cancelable as of December 31, 2016. Our formulation agreement with Durect Corporation obligates us to make certain milestone payments upon achieving clinical milestones and regulatory milestones.

We have an accumulated deficit of \$145.5 million at December 31, 2016. We expect our cash requirements to be significant in the future. The amount and timing of our future cash requirements will depend on regulatory and market acceptance of our drug candidates and the resources we devote to researching and developing, formulating, manufacturing, commercializing and supporting our products. We believe that our current resources should be sufficient to fund our operations for at least the next 12 months. We may seek additional future funding through public or private financing within this timeframe, if such funding is available and on terms acceptable to us.

As of December 31, 2016, there were 10.0 million shares available for issuance under the ATM Agreement. No shares were issued under the ATM Agreement in 2016 or 2015. We have deferred financing costs of \$0.1 million paid in connection with entering into the ATM Agreement.

Off-balance Sheet Arrangements

As of December 31, 2016, we did not have any relationships with unconsolidated entities or financial partnerships, such as entities often referred to as structured finance or special purpose entities, which would have been established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes. In addition, we do not engage in trading activities involving non-exchange traded contracts. Therefore, we are not materially exposed to financing, liquidity, market or credit risk that could arise if we had engaged in these relationships. We do not have relationships or transactions with persons or entities that derive benefits from their non-independent relationship with us or our related parties.

Item 7A. *Quantitative and Qualitative Disclosures about Market Risk*

The primary objective of our cash investment activities is to preserve principal while at the same time maximizing the income we receive from our investments without significantly increasing risk. Some of the securities that we invest in may be subject to market risk. This means that a change in prevailing interest rates may cause the principal amount of the investment to fluctuate. For example, if we hold a security that was issued with a fixed interest rate at the then-prevailing rate and the interest rate later rises, the principal amount of our investment will probably decline. A hypothetical 50 basis point increase in interest rates reduces the fair value of our available-for-sale securities at December 31, 2016 by approximately \$2,000. To minimize this risk in the future, we intend to maintain our portfolio of cash equivalents and marketable securities in a variety of securities, including commercial paper, government and non-government debt securities and/or money market funds that invest in such securities. We have no holdings of derivative financial or commodity instruments. As of December 31, 2016, our investments consisted of investments in commercial paper, corporate notes and obligations or in money market accounts and checking funds with variable market rates of interest. We believe our credit risk is immaterial.

Item 8. *Financial Statements and Supplementary Data*

INDEX TO FINANCIAL STATEMENTS

| | <u>Page</u> |
|--|-------------|
| <u>Report of Independent Registered Public Accounting Firm</u> | 43 |
| <u>Balance Sheets</u> | 44 |
| <u>Statements of Operations</u> | 45 |
| <u>Statements of Comprehensive Income (Loss)</u> | 46 |
| <u>Statements of Stockholders' Equity</u> | 47 |
| <u>Statements of Cash Flows</u> | 48 |
| <u>Notes to Financial Statements</u> | 49 |

Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders
Pain Therapeutics, Inc.

We have audited the accompanying balance sheets of Pain Therapeutics, Inc. as of December 31, 2016 and 2015, and the related statements of operations, comprehensive income (loss), stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2016. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Pain Therapeutics, Inc. at December 31, 2016 and 2015, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2016, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), Pain Therapeutics, Inc.'s internal control over financial reporting as of December 31, 2015, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 Framework) and our report dated March 7, 2017 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

Austin, Texas
March 7, 2017

PAIN THERAPEUTICS, INC.
BALANCE SHEETS
(in thousands, except share and per share data)

| | <u>December 31,</u> | |
|--|---------------------|------------------|
| | <u>2016</u> | <u>2015</u> |
| ASSETS | | |
| Current assets: | | |
| Cash and cash equivalents | \$ 16,615 | \$ 31,299 |
| Marketable securities | 2,099 | — |
| Other current assets | 356 | 392 |
| Total current assets | 19,070 | 31,691 |
| Property and equipment, net | 232 | 215 |
| Other assets | — | 12 |
| Total assets | <u>\$ 19,302</u> | <u>\$ 31,918</u> |
| LIABILITIES AND STOCKHOLDERS' EQUITY | | |
| Current liabilities: | | |
| Accounts payable | \$ 303 | \$ 1,034 |
| Accrued development expense | 27 | 894 |
| Accrued compensation and benefits | 335 | 623 |
| Total current liabilities | 665 | 2,551 |
| Noncurrent liabilities | — | — |
| Total liabilities | 665 | 2,551 |
| Commitments and contingencies | | |
| Stockholders' equity: | | |
| Preferred stock, \$.001 par value; 10,000,000 shares authorized, none issued and outstanding | — | — |
| Common stock, \$.001 par value; 120,000,000 shares authorized; 46,141,935 and 45,756,117 shares issued and outstanding at December 31, 2016 and 2015, respectively | 46 | 46 |
| Additional paid-in capital | 164,079 | 159,959 |
| Accumulated other comprehensive income | — | — |
| Accumulated deficit | (145,488) | (130,638) |
| Total stockholders' equity | 18,637 | 29,367 |
| Total liabilities and stockholders' equity | <u>\$ 19,302</u> | <u>\$ 31,918</u> |

See accompanying notes to financial statements.

PAIN THERAPEUTICS, INC.
STATEMENTS OF OPERATIONS
(in thousands, except per share data)

| | Years ended December 31, | | |
|--|---------------------------------|-------------|-------------|
| | 2016 | 2015 | 2014 |
| Operating expenses: | | | |
| Research and development | \$ 9,176 | \$ 9,100 | \$ 7,306 |
| General and administrative | 5,781 | 5,102 | 5,127 |
| Total operating expenses | 14,957 | 14,202 | 12,433 |
| Operating loss | (14,957) | (14,202) | (12,433) |
| Interest income | 107 | 57 | 47 |
| Net loss | \$ (14,850) | \$ (14,145) | \$ (12,386) |
| Net loss per share, basic and diluted | \$ (0.33) | \$ (0.31) | \$ (0.27) |
| Shares used in computing net loss per share, basic and diluted | 45,638 | 45,356 | 45,269 |

See accompanying notes to financial statements.

PAIN THERAPEUTICS, INC.
STATEMENTS OF COMPREHENSIVE INCOME (LOSS)
(in thousands)

| | Years ended December 31, | | |
|--|---------------------------------|--------------------|--------------------|
| | 2016 | 2015 | 2014 |
| Net loss | \$ (14,850) | \$ (14,145) | \$ (12,386) |
| Other comprehensive income (loss): | | | |
| Net unrealized gains (losses) on marketable securities | — | (1) | — |
| Comprehensive loss | <u>\$ (14,850)</u> | <u>\$ (14,146)</u> | <u>\$ (12,386)</u> |

See accompanying notes to financial statements.

PAIN THERAPEUTICS, INC.
STATEMENTS OF STOCKHOLDERS' EQUITY
(in thousands)

| | Common stock | | Additional | Accumulated | Accumulated | Total |
|--|--------------|-----------|-----------------|----------------------------|--------------|----------------------|
| | Shares | Par value | paid-in capital | other comprehensive income | deficit | stockholders' equity |
| Balance at December 31, 2013 | 45,510,038 | \$ 45 | \$ 152,363 | \$ 1 | \$ (104,107) | \$ 48,302 |
| Issuance of common stock pursuant to exercise of stock options | 246,079 | 1 | 378 | — | — | 379 |
| Non-cash stock-related compensation for: | | | | | | |
| Stock options for employees | — | — | 3,619 | — | — | 3,619 |
| Stock options for non-employees | — | — | 142 | — | — | 142 |
| Net loss | — | — | — | — | (12,386) | (12,386) |
| Balance at December 31, 2014 | 45,756,117 | 46 | 156,502 | 1 | (116,493) | 40,056 |
| Non-cash stock-related compensation for: | | | | | | |
| Stock options for employees | — | — | 3,453 | — | — | 3,453 |
| Stock options for non-employees | — | — | 4 | — | — | 4 |
| Other comprehensive loss | — | — | — | (1) | — | (1) |
| Net loss | — | — | — | — | (14,145) | (14,145) |
| Balance at December 31, 2015 | 45,756,117 | 46 | 159,959 | — | (130,638) | 29,367 |
| Non-cash stock-related compensation for: | | | | | | |
| Stock options for employees | — | — | 3,467 | — | — | 3,467 |
| Stock options for non-employees | — | — | 25 | — | — | 25 |
| Performance Awards and related non-cash stock-related compensation | 485,000 | — | 842 | — | — | 842 |
| Performance Awards related to statutory taxes | (99,182) | — | (214) | — | — | (214) |
| Net loss | — | — | — | — | (14,850) | (14,850) |
| Balance at December 31, 2016 | 46,141,935 | \$ 46 | \$ 164,079 | \$ — | \$ (145,488) | \$ 18,637 |

See accompanying notes to financial statements.

PAIN THERAPEUTICS, INC.
STATEMENTS OF CASH FLOWS
(in thousands)

| | Years ended December 31, | | |
|--|---------------------------------|------------------|------------------|
| | 2016 | 2015 | 2014 |
| Cash flows used in operating activities: | | | |
| Net loss | \$ (14,850) | \$ (14,145) | \$ (12,386) |
| Adjustments to reconcile net loss to net cash used in operating activities: | | | |
| Non-cash stock-based compensation | 4,334 | 3,457 | 3,761 |
| Depreciation and amortization | 58 | 45 | 15 |
| Non-cash net interest income | (8) | (4) | (2) |
| Changes in operating assets and liabilities: | | | |
| Other current assets | 86 | (87) | 26 |
| Other non-current assets | 12 | — | (12) |
| Accounts payable | (711) | 841 | (272) |
| Accrued development expense | (867) | 869 | (616) |
| Accrued compensation and benefits | (288) | (29) | (60) |
| Other current liabilities | — | — | (3) |
| Net cash used in operating activities | <u>(12,234)</u> | <u>(9,053)</u> | <u>(9,549)</u> |
| Cash flows provided by (used in) investing activities: | | | |
| Purchases of property and equipment | (75) | (195) | (80) |
| Purchases of marketable securities | (4,141) | (3,847) | (2,598) |
| Maturities of marketable securities | 2,050 | 3,850 | 3,850 |
| Net cash provided by (used in) investing activities | <u>(2,166)</u> | <u>(192)</u> | <u>1,172</u> |
| Cash flows provided by (used in) financing activities: | | | |
| Proceeds from issuance of common stock, net | — | — | 379 |
| Statutory taxes for net exercise of Performance Awards | (214) | — | — |
| Deferred financing costs | (70) | (46) | — |
| Net cash provided by (used in) financing activities | <u>(284)</u> | <u>(46)</u> | <u>379</u> |
| Net decrease in cash and cash equivalents | (14,684) | (9,291) | (7,998) |
| Cash and cash equivalents at beginning of the period | 31,299 | 40,590 | 48,588 |
| Cash and cash equivalents at end of the period | <u>\$ 16,615</u> | <u>\$ 31,299</u> | <u>\$ 40,590</u> |

See accompanying notes to financial statements.

PAIN THERAPEUTICS, INC.
NOTES TO FINANCIAL STATEMENTS

1. General

Pain Therapeutics, Inc. develops proprietary drugs that offer significant improvements to patients and healthcare professionals. We generally focus our drug development efforts on disorders of the nervous system, such as chronic pain.

In the course of our development activities, we have sustained cumulative operating losses. There are no assurances that additional financing will be available on favorable terms, or at all.

2. Summary of Significant Accounting Policies

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires that management make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amount of revenue earned and expenses incurred during the reporting period. Actual results could differ from those estimates.

Proceeds from Grants

We record proceeds from a grant from the NIH as a reduction to our research and development expenses. We received \$1.5 million in 2016 and \$0.2 million in 2015 from this grant.

Cash Equivalents, Marketable Securities and Concentration of Credit Risk

We invest in cash equivalents and marketable securities. We consider highly-liquid financial instruments with original maturities of three months or less to be cash equivalents. Our marketable securities include interest-bearing financial instruments, generally consisting of corporate or government securities.

We are subject to credit risk due to our investments. Our investment policy allows for investments in marketable securities with active secondary or resale markets, establishes diversification and credit quality requirements and limits investments by maturity and issuer. We maintain our investments at one financial institution.

A change in prevailing interest rates may cause the fair value of the investment to fluctuate. We don't recognize an impairment charge related to this type of fluctuation because the fluctuation is temporary and eliminated by the time an investment matures. We would recognize an impairment charge if and when we determine that a decline in the fair value below the amortized cost of an investment is other-than-temporary. We consider various factors in determining whether to recognize an impairment charge, including any adverse changes in the investees' financial condition, how long the fair value has been below the amortized cost and whether it is more likely than not that we would elect to or be required to sell the marketable security before its anticipated recovery.

We may elect to sell marketable securities before they mature. We hold these investments as "available for sale" and include these investments in our Balance Sheets as current assets, even though the contractual maturity of a particular investment may be beyond one year.

Fair Value Measurements

We report our cash equivalents and marketable securities at fair value as Level 1, Level 2 or Level 3 using the following inputs:

- Level 1 includes quoted prices in active markets. We base the fair value of money market funds and U.S. treasury securities on Level 1 inputs.
- Level 2 includes significant observable inputs, such as quoted prices for identical or similar investments, or other inputs that are observable and can be corroborated by observable market data for similar securities. We use market pricing and other observable market inputs obtained from third-party providers. We use the bid price to establish fair value where a bid price is available. We base the fair value of our marketable securities on Level 2 inputs.
- Level 3 includes unobservable inputs that are supported by little or no market activity. We do not have any investments where the fair value is based on Level 3 inputs.

We include unrealized gains or losses on our investments as Accumulated other comprehensive income (loss) in the Stockholders' equity section of our Balance Sheets. We include changes in net unrealized gains or losses in our Statements of Comprehensive Income (Loss). We would recognize significant realized gains and losses on a specific identification basis as other income in our Statements of Operations.

Business Segments

We report segment information based on how we internally evaluate the operating performance of our business units, or segments. Our operations are confined to one business segment: the development of novel drugs.

Stock-based Compensation

We recognize non-cash expense for the fair value of all stock options and other share-based awards. We use the Black-Scholes option valuation model to calculate the fair value of stock options, using the single-option award approach and straight-line attribution method. For options granted to employees and directors, we recognize the resulting fair value as expense on a straight-line basis over the vesting period of each respective stock option, generally four years. For options granted to non-employees, we remeasure the fair value expense using Black-Scholes each reporting period.

We have granted share-based awards that vest upon achievement of certain performance criteria, or Performance Awards. We multiply the number of Performance Awards by the fair market value of our common stock on the date of grant to calculate the fair value of each award. We estimate an implicit service period for achieving performance criteria for each award. We recognize the resulting fair value as expense over the implicit service period when we conclude that achieving the performance criteria is probable. We periodically review and update as appropriate our estimates of implicit service periods and conclusions on achieving the performance criteria. Performance Awards vest and common stock is issued upon achievement of the performance criteria.

Net Loss per Share

Basic net loss per share is computed on the basis of the weighted-average number of common shares outstanding for the reporting period. Diluted net loss per share is computed on the basis of the weighted-average number of common shares outstanding plus dilutive potential common shares outstanding using the treasury-stock method. Potential dilutive common shares consist of outstanding equity awards and warrants. The numerators and denominators in the calculation

of basic and diluted net loss per share were as follows (in thousands):

| | Years ended December 31, | | |
|--|--------------------------|------------------|------------------|
| | 2016 | 2015 | 2014 |
| Numerator: | | | |
| Net loss | \$ (14,850) | \$ (14,145) | \$ (12,386) |
| Denominator: | | | |
| Shares used in computing net loss per share, basic and diluted | 45,638 | 45,356 | 45,269 |
| Net loss per share, basic and diluted | <u>\$ (0.33)</u> | <u>\$ (0.31)</u> | <u>\$ (0.27)</u> |
| Dilutive common shares excluded from net loss per share, diluted | 17,745 | 17,421 | 10,625 |

We excluded weighted equity awards outstanding to purchase common stock from the calculation of diluted net loss per share because the effect of including these shares in this calculation would be anti-dilutive.

Income Taxes

We make estimates and judgments in determining the need for a provision for income taxes, including the estimation of our taxable income or loss for each full fiscal year. In 2016, we adopted ASU 2016-09, *Improvements to Employee Share-Based Payment Accounting*. The adoption of this standard had no impact on our financial statements for 2016.

We have accumulated significant deferred tax assets that reflect the tax effects of net operating loss and tax credit carryovers and temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. Realization of certain deferred tax assets is dependent upon future earnings. We are uncertain about the timing and amount of any future earnings. Accordingly, we offset these deferred tax assets with a valuation allowance.

We may in the future determine that certain deferred tax assets will likely be realized, in which case we will reduce our valuation allowance in the period in which such determination is made. If the valuation allowance is reduced, we may recognize a benefit from income taxes in our Statement of Operations in that period.

We classify interest recognized pursuant to our deferred tax assets as interest expense, when appropriate.

Recent Accounting Pronouncements

We reviewed recently issued accounting pronouncements and plan to adopt those that are applicable to us. We do not expect the adoption of these pronouncements to have a material impact on our financial position, results of operations or cash flows.

3. Collaboration Agreements

Direct Corporation

We have an exclusive, worldwide Development and License Agreement, or the Direct Agreement, with Direct to use a patented controlled-release technology that forms the basis for REMOXY. Under the terms of the Direct Agreement, we are solely responsible for clinical development, Direct is responsible for furnishing suitable laboratory facilities, equipment and personnel during pre-clinical phases of development and we and Direct are jointly responsible for certain pre-clinical activities. We reimburse Direct's expenses and have made milestone payments based on the achievement of certain clinical or regulatory milestones.

4. Cash and Cash Equivalents and Marketable Securities

Cash, cash equivalents and marketable securities held as available-for-sale consisted of the following (in thousands):

| | Cash, Cash Equivalents and Marketable Securities | | | | | |
|-----------------------------|--|------------------|-------------------|----------------------|------------------|------------------|
| | Amortized Cost | Unrealized Gains | Unrealized Losses | Estimated Fair Value | Accrued Interest | Total Value |
| December 31, 2016 | | | | | | |
| Cash | \$ 1,434 | \$ — | \$ — | \$ 1,434 | \$ — | \$ 1,434 |
| Cash equivalents | 12,783 | — | — | 12,783 | — | 12,783 |
| Commercial paper | 4,497 | — | — | 4,497 | — | 4,497 |
| Corporate securities | — | — | — | — | — | — |
| | <u>\$ 18,714</u> | <u>\$ —</u> | <u>\$ —</u> | <u>\$ 18,714</u> | <u>\$ —</u> | <u>\$ 18,714</u> |
| Reported as: | | | | | | |
| Cash and cash equivalents | \$ 16,615 | — | — | \$ 16,615 | \$ — | \$ 16,615 |
| Marketable securities | 2,099 | — | — | 2,099 | — | 2,099 |
| | <u>\$ 18,714</u> | <u>\$ —</u> | <u>\$ —</u> | <u>\$ 18,714</u> | <u>\$ —</u> | <u>\$ 18,714</u> |
| Maturities: | | | | | | |
| Matures in one year or less | \$ 18,714 | \$ — | \$ — | \$ 18,714 | \$ — | \$ 18,714 |
| Matures one to three years | — | — | — | — | — | — |
| | <u>\$ 18,714</u> | <u>\$ —</u> | <u>\$ —</u> | <u>\$ 18,714</u> | <u>\$ —</u> | <u>\$ 18,714</u> |
| December 31, 2015 | | | | | | |
| Cash | \$ 273 | \$ — | \$ — | \$ 273 | \$ — | \$ 273 |
| Cash equivalents | 22,630 | — | — | 22,630 | — | 22,630 |
| Commercial paper | 8,396 | 1 | (1) | 8,396 | — | 8,396 |
| | <u>\$ 31,299</u> | <u>\$ 1</u> | <u>\$ (1)</u> | <u>\$ 31,299</u> | <u>\$ —</u> | <u>\$ 31,299</u> |
| Reported as: | | | | | | |
| Cash and cash equivalents | \$ 31,299 | \$ 1 | \$ (1) | \$ 31,299 | \$ — | \$ 31,299 |
| Marketable securities | — | — | — | — | — | — |
| | <u>\$ 31,299</u> | <u>\$ 1</u> | <u>\$ (1)</u> | <u>\$ 31,299</u> | <u>\$ —</u> | <u>\$ 31,299</u> |
| Maturities: | | | | | | |
| Matures in one year or less | \$ 31,299 | \$ 1 | \$ (1) | \$ 31,299 | \$ — | \$ 31,299 |
| Matures one to three years | — | — | — | — | — | — |
| | <u>\$ 31,299</u> | <u>\$ 1</u> | <u>\$ (1)</u> | <u>\$ 31,299</u> | <u>\$ —</u> | <u>\$ 31,299</u> |

To date we have not recorded any impairment charges on marketable securities related to other-than-temporary declines in market value.

Our assets measured at fair value were (in thousands):

| | Level 1 | Level 2 | Level 3 | Total |
|---------------------------|------------------|-----------------|-------------|------------------|
| December 31, 2016 | | | | |
| Cash and cash equivalents | \$ 14,217 | \$ — | \$ — | \$ 14,217 |
| Commercial paper | — | 4,497 | — | 4,497 |
| | <u>\$ 14,217</u> | <u>\$ 4,497</u> | <u>\$ —</u> | <u>\$ 18,714</u> |
| December 31, 2015 | | | | |
| Cash and cash equivalents | \$ 22,903 | \$ — | \$ — | \$ 22,903 |
| Commercial paper | — | 8,396 | — | 8,396 |
| | <u>\$ 22,903</u> | <u>\$ 8,396</u> | <u>\$ —</u> | <u>\$ 31,299</u> |

5. Property and Equipment

Property and equipment includes furniture and equipment with a purchase value of \$1.0 million at December 31, 2016 and \$0.9 million at December 31, 2015. Depreciation is recognized using the straight-line method over the expected life of the property and equipment. Accumulated depreciation was \$0.7 million at both December 31, 2016 and December 31, 2015. Depreciation and amortization expense was not significant in 2016, 2015 and 2014.

6. Stockholders' Equity and Stock-Based Compensation

Preferred Stock

Our Board of Directors has the authority to issue preferred stock in one or more series and to fix the rights, preferences, privileges, restrictions and the number of shares constituting any series or the designation of the series.

2008 Equity Incentive Plan

Under our 2008 Equity Incentive Plan, or 2008 Equity Plan, our employees, directors and consultants may receive share-based awards, including grants of stock options and Performance Awards. Our Board of Directors or a designated Committee of the Board is responsible for administration of the 2008 Equity Plan and determines the terms and conditions of each option granted, consistent with the terms of the plan. The 2008 Equity Plan terminates in December 2017.

Share-based awards generally expire ten years from the date of grant. Cancelled stock options become available for reissuance. As of December 31, 2016, we have 3.4 million shares reserved and available to be issued under the 2008 Equity Incentive Plan.

The 2008 Equity Plan provides for the automatic grant of options to purchase shares of common stock to outside directors. On the date of each annual stockholders' meeting, each outside director is automatically granted an option to purchase 50,000 shares of common stock. These options have a ten-year life, have an exercise price of 100% of the fair market value of the stock on the date of grant, and become exercisable as to 25% of the shares on the anniversary of its date of grant provided the optionee continues to serve as a director on such dates.

When stock options or Performance Awards are exercised net of the exercise price and taxes, the number of shares of stock issued is reduced by the number of shares equal to the amount of taxes owed by the award recipient and that number of shares are cancelled. We then use our cash to pay tax authorities the amount of statutory taxes owed by and on behalf of the award recipient.

Stock Options

The following summarizes information about stock option activity during 2016:

| | Number of Options | Weighted Average Exercise Price | Weighted Average Remaining Contractual Term | Aggregate Intrinsic Value |
|--|----------------------|---------------------------------------|---|---------------------------------|
| | | | In years | In millions |
| Outstanding as of December 31, 2015 | 18,515,254 | \$ 3.75 | 5.1 | \$ — |
| Granted | 355,000 | \$ 2.36 | | |
| Exercised | — | \$ — | | |
| Canceled | (1,825,767) | \$ 4.87 | | |
| Outstanding as of December 31, 2016 | <u>17,044,487</u> | \$ 3.60 | 4.8 | \$ — |
| Vested and expected to vest at December 31, 2016 | <u>17,044,487</u> | \$ 3.60 | 4.8 | \$ — |
| Exercisable at December 31, 2016 | <u>13,430,734</u> | \$ 3.89 | 3.8 | \$ — |

The following summarizes information about stock options at December 31, 2016 by a range of exercise prices:

| Range of exercise prices | | Options outstanding | | | Options exercisable | | |
|--------------------------|---------|-------------------------------------|--|--|--------------------------------|--|--|
| | | Number of outstanding options | Weighted average remaining contractual life (in years) | Weighted average exercise price | Number of vested options | Weighted average exercise price | |
| From | To | | | | | | |
| \$ 1.72 | \$ 1.87 | 3,580,000 | 8.4 | \$ 1.81 | 1,384,165 | \$ 1.79 | |
| \$ 2.03 | \$ 2.58 | 3,454,819 | 5.1 | \$ 2.45 | 2,767,527 | \$ 2.48 | |
| \$ 2.69 | \$ 4.39 | 4,791,636 | 3.2 | \$ 3.69 | 4,717,469 | \$ 3.70 | |
| \$ 4.59 | \$ 5.00 | 3,735,079 | 3.5 | \$ 4.87 | 3,111,329 | \$ 4.86 | |
| \$ 5.20 | \$ 7.65 | <u>1,482,953</u> | <u>3.5</u> | <u>\$ 7.12</u> | <u>1,450,244</u> | <u>\$ 7.16</u> | |
| | | <u>17,044,487</u> | <u>4.8</u> | <u>\$ 3.60</u> | <u>13,430,734</u> | <u>\$ 3.89</u> | |

We use Black-Scholes to estimate the fair value of options granted. Black-Scholes considers a number of factors, including the market price of our common stock. For options granted to employees and directors, we used certain factors to value each stock option granted, which resulted in a weighted average fair value of options granted during 2016, 2015 and 2014, as follows:

| | 2016 | 2015 | 2014 |
|--|----------|------------|------------|
| Volatility | 72% | 74% to 76% | 68% to 74% |
| Risk-free interest rates | 1% to 2% | 1% to 2% | 1% to 2% |
| Expected life of option | 7 years | 7 years | 7 years |
| Dividend yield | zero | zero | zero |
| Forfeiture rate | zero | zero | zero |
| Weighted average fair value of stock options granted | \$1.60 | \$1.29 | \$2.32 |

Volatility is based on reviews of the historical volatility of our common stock. Risk-free interest rates are based on yields of U.S. treasury notes in effect at the date of grant. Expected life of option is based on actual historical option exercises. Dividend yield is zero because we do not anticipate paying cash dividends in the foreseeable future. We estimate forfeitures and adjust this estimate periodically based in part on the extent to which actual forfeitures differ from our estimates.

For options granted to non-employees, we estimate the fair value of stock options granted using factors similar to those used for stock options granted to employees and directors and appropriate for the terms underlying the stock options granted to non-employees. We re-measure the compensation expense for options granted to non-employees each reporting period.

As of December 31, 2016, we expect to recognize compensation expense of \$5.9 million related to non-vested options held by employees and directors over the weighted average remaining recognition period of 2.2 years.

Performance Awards

The following summarizes information about Performance Award activity during 2016:

| | Number of Performance Awards |
|-------------------------------------|-------------------------------------|
| Outstanding as of December 31, 2015 | 1,889,465 |
| Granted | 150,000 |
| Vested Performance Awards | (485,000) |
| Canceled | — |
| Outstanding as of December 31, 2016 | <u>1,554,465</u> |

Vested Performance Awards resulted from the resubmission of the NDA for REMOXY. No outstanding Performance Awards are vested. If and when outstanding Performance Awards vest, we would recognize \$4.7 million in non-cash stock-based compensation expense. These Performance Awards expire between 2022 and 2026.

Stock-Based Compensation Expense

The following summarizes information about non-cash stock-based compensation expense, in thousands:

| | Years ended December 31, | | |
|---|---------------------------------|-----------------|-----------------|
| | 2016 | 2015 | 2014 |
| Research and development | | | |
| Vesting of stock options | \$ 1,313 | \$ 1,198 | \$ 1,624 |
| Vesting of Performance Awards | 438 | — | — |
| | <u>1,751</u> | <u>1,198</u> | <u>1,624</u> |
| General and administrative | | | |
| Vesting of stock options | 2,179 | 2,259 | 2,137 |
| Vesting of Performance Awards | 404 | — | — |
| | <u>2,583</u> | <u>2,259</u> | <u>2,137</u> |
| Total non-cash stock-based compensation expenses | | | |
| Vesting of stock options | 3,492 | 3,457 | 3,761 |
| Vesting of Performance Awards | 842 | — | — |
| | <u>\$ 4,334</u> | <u>\$ 3,457</u> | <u>\$ 3,761</u> |

Non-cash stock-related compensation expense related to vesting of Performance Awards was associated with the resubmission of the NDA for REMOXY.

Capital on Demand Sales Agreement

In December 2015, we entered into an Capital on Demand™ Sales Agreement with JonesTrading Institutional Services, or the ATM Agreement, relating to the offering of up to 10.0 million shares of our Common Stock in “at the market” offerings. We did not issue any shares under the ATM Agreement in 2016 or 2015. We deferred financing costs of \$0.1 million at December 31, 2016 and 2015 paid in connection with entering into the ATM Agreement.

7. Employee 401(k) Benefit Plan

We have a defined-contribution savings plan under Section 401(k) of the Internal Revenue Code. The plan covers substantially all employees. Employees are eligible to participate in the plan the first day of the month after hire and may contribute up to the current statutory limits under Internal Revenue Service regulations. The 401(k) plan permits us to make additional matching contributions on behalf of all employees. Through December 31, 2016, we have not made any

matching contributions to the 401(k) plan.

8. Income Taxes

We did not provide for income taxes in 2016 and 2015 because we had a net operating loss for tax purposes in those years and the tax benefit that would have resulted from the statutory rate was fully offset by the valuation allowance.

Deferred tax assets and valuation allowance

Deferred tax assets reflect the tax effects of net operating loss and tax credit carryforwards and temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. We offset our deferred tax assets by a valuation allowance because we are uncertain about the timing and amount of any future profits. Significant components of our deferred tax assets are as follows (in thousands):

| | December 31, | |
|---|--------------|-------------|
| | 2016 | 2015 |
| Deferred tax assets: | | |
| Net operating loss carryforwards | \$ 22,300 | \$ 17,100 |
| Stock-related compensation | 9,100 | 10,600 |
| Research & development credit carryforwards | 6,200 | 6,000 |
| Other | 200 | 500 |
| | 37,800 | 34,200 |
| Valuation allowance | (37,800) | (34,200) |
| | <u>\$ —</u> | <u>\$ —</u> |

As of the beginning of 2016, we increased both our net operating loss carryforwards and our valuation allowance by \$0.9 million when we adopted ASU 2016-09 for certain tax deductions associated with stock option transactions greater than the stock-related compensation expense in our financial statements. The valuation allowance increased by \$3.6 million in 2016 and \$3.4 million in 2015.

Our pre-tax net operating loss carryforwards of \$65.6 million are federal and expire between 2029 and 2036. As of December 31, 2016, we had federal research and development tax credits of approximately \$10.4 million, which expire in the years 2023 through 2036.

Unrecognized tax benefits

We have unrecognized tax benefits related to tax credits. We added to our unrecognized tax benefits in 2016 and 2015 as follows (in thousands):

| | 2016 | 2015 |
|--|-----------------|-----------------|
| Beginning balance | \$ 4,000 | \$ 3,900 |
| Additions based on tax positions related to the current year | 200 | 100 |
| Ending balance | <u>\$ 4,200</u> | <u>\$ 4,000</u> |

9. Leases and Commitments

We believe that our facilities are adequate and suitable for our current needs. We lease approximately 6,000 square feet of office space pursuant to a non-cancelable operating lease in Austin, TX that expires in December 2017. Future minimum lease payments are \$0.1 million in 2017. Rent expense was \$0.1 million in 2016, 2015 and 2014.

We conduct our product research and development programs through a combination of internal and collaborative

programs that include, among others, arrangements with universities, contract research organizations and clinical research sites. We have contractual arrangements with these organizations, however these contracts are cancelable on thirty days' notice and our obligations under these contracts are largely based on services performed.

10. Legal proceedings

KB Partners I, L.P., Individually and On Behalf of All Others Similarly Situated v. Pain Therapeutics, Inc., Remi Barbier, Nadav Friedmann and Peter S. Roddy, No. 11-cv-01034 (W.D. Tex.)

On December 2, 2011, a purported class action was filed against us and our executive officers in the U.S. District Court for the Western District of Texas alleging, among other things, violations of Section 10(b), Rule 10b-5, and Section 20(a) of the Exchange Act. At a preliminary settlement conference on September 1, 2016, the Court approved a Stipulated Settlement Agreement. Following a hearing on December 16, 2016, the Court issued its final approval for the Stipulated Settlement Agreement and administratively closed the docket.

11. Selected Quarterly Financial Data (Unaudited) (in thousands, except per share data)

| | Quarters Ended | | | |
|--------------------------------------|----------------|------------|--------------|-------------|
| | March 31 | June 30 | September 30 | December 31 |
| 2016 | | | | |
| Total revenue | \$ — | \$ — | \$ — | \$ — |
| Net loss | \$ (5,795) | \$ (3,015) | \$ (3,518) | \$ (2,522) |
| Basic and diluted net loss per share | \$ (0.13) | \$ (0.07) | \$ (0.08) | \$ (0.06) |
| 2015 | | | | |
| Total revenue | \$ — | \$ — | \$ — | \$ — |
| Net loss | \$ (2,583) | \$ (3,374) | \$ (3,671) | \$ (4,517) |
| Basic and diluted net loss per share | \$ (0.06) | \$ (0.07) | \$ (0.08) | \$ (0.10) |
| 2014 | | | | |
| Total revenue | \$ — | \$ — | \$ — | \$ — |
| Net loss | \$ (3,450) | \$ (3,246) | \$ (3,534) | \$ (2,156) |
| Basic and diluted net loss per share | \$ (0.08) | \$ (0.07) | \$ (0.08) | \$ (0.05) |

Item 9. *Changes in and Disagreements with Accountants on Accounting and Financial Disclosure*

None.

Item 9A. *Controls and Procedures*

Evaluation of disclosure controls and procedures. Our management evaluated, with the participation of our Chief Executive Officer and our Chief Financial Officer, the effectiveness of our disclosure controls and procedures as of the end of the period covered by this Annual Report on Form 10-K. Based on this evaluation, our Chief Executive Officer and our Chief Financial Officer have concluded that our disclosure controls and procedures are effective to ensure that information we are required to disclose in reports that we file or submit under the Securities Exchange Act of 1934 is recorded, processed, summarized and reported within the time periods specified in Securities and Exchange Commission rules and forms.

Management's annual report on internal control over financial reporting. We are responsible for establishing and maintaining adequate internal control over our financial reporting. We have assessed the effectiveness of internal control over financial reporting as of December 31, 2016. Our assessment was based on criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission, or COSO, in Internal Control-Integrated Framework (2013 Framework).

Our internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. Our internal control over financial reporting includes those policies and procedures that:

- (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect our transactions and dispositions of our assets;
- (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that our receipts and expenditures are being made only in accordance with authorizations of our management and board of directors; and
- (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of our assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Based on the COSO criteria, we believe our internal control over financial reporting as of December 31, 2016 was effective.

Changes in internal control over financial reporting. There was no change in our internal control over financial reporting that occurred during the quarter ended December 31, 2016 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Our independent registered public accounting firm, Ernst & Young LLP, has audited the financial statements included in this Annual Report on Form 10-K and has issued a report on the effectiveness of our internal control over financial reporting. The attestation report of Ernst & Young LLP is included below.

Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders
Pain Therapeutics, Inc.

We have audited Pain Therapeutics, Inc.'s internal control over financial reporting as of December 31, 2016, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 Framework) (the COSO criteria). Pain Therapeutic, Inc.'s management is responsible for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's annual report on internal control over financial reporting. Our responsibility is to express an opinion on the company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, Pain Therapeutics, Inc. maintained, in all material respects, effective internal control over financial reporting as of December 31, 2016, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the balance sheets of Pain Therapeutics, Inc. as of December 31, 2016 and 2015, and the related statements of operations, comprehensive income (loss), stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2016 of Pain Therapeutics, Inc. and our report dated March 7, 2017 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

Austin, Texas
March 7, 2017

Item 9B. Other Information

None

PART III

Item 10. Directors and Executive Officers and Corporate Governance

The information regarding our directors, executive officers, director nomination process and the audit committee of our board of directors is incorporated by reference from "Directors and Executive Officers" in our Proxy Statement for our 2017 Annual Meeting of Stockholders.

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Securities Exchange Act of 1934, as amended requires our executive officers and directors and persons who own more than ten percent (10%) of a registered class of our equity securities to file reports of ownership and changes in ownership with the SEC. Executive officers, directors and greater than ten percent (10%) stockholders are required to furnish us with copies of all Section 16(a) forms they file. We believe all of our executive officers and directors complied with all applicable filing requirements during 2016.

Code of Ethics

We have adopted a Code of Ethics that applies to all of our directors, officers and employees, including our principal executive officer, principal financial officer and principal accounting officer. We publicize the Code of Ethics through posting the policy on our website, <http://www.paintrials.com>. We will disclose on our website any waivers of, or amendments to, our Code of Ethics.

Item 11. Executive Compensation

The information required by this Item is incorporated by reference from our definitive Proxy Statement referred to in Item 10 above where it appears under the heading "Executive Compensation and Other Matters."

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

The information required by this Item regarding security ownership of certain beneficial owners and management is incorporated by reference from our definitive Proxy Statement referred to in Item 10 above where it appears under the heading "Security Ownership of Certain Beneficial Owners and Management."

The following table summarizes the securities authorized for issuance under our equity compensation plans as of December 31, 2016:

| | Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights | Weighted Average Exercise Price of Outstanding Options, Warrants and Rights | Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans |
|--|--|--|---|
| Equity compensation plans approved by stockholders | 18,598,952 | \$ 3.30 | 3,761,917 |
| Equity compensation plans not approved by stockholders | — | — | — |
| | <u>18,598,952</u> | <u>\$ 3.30</u> | <u>3,761,917</u> |

Item 13. *Certain Relationships and Related Transactions and Director Independence*

The information required by this Item is incorporated by reference from our definitive Proxy Statement referred to in Item 10 above where it appears under the heading "Certain Relationships and Related Transactions."

Item 14. *Principal Accountant Fees and Services*

The information required by this Item is incorporated by reference from our definitive Proxy Statement referred to in Item 10 above where it appears under the heading "Principal Accountant Fees and Services."

PART IV

Item 15. Exhibits and Financial Statement Schedules

(a) The following documents are filed as part of this Form 10-K:

- (1) *Financial Statements (included in Part II of this report):*
 Report of Independent Registered Public Accounting Firm
 Balance Sheets
 Statements of Operations
 Statements of Comprehensive Income
 Statements of Stockholders' Equity
 Statements of Cash Flows
 Notes to Financial Statements
- (2) *Financial Statement Schedules:*
 All financial statement schedules are omitted because the information is inapplicable or presented in the notes to the financial statements.
- (3) *Management Contracts, Compensatory Plans and Arrangements.*
 Management contracts, compensatory plans and arrangements are indicated by the symbol “*” in the applicable exhibits listed in Item 15(b), below.

(b) *Exhibits*

The exhibits listed below are filed as part of this Form 10-K other than Exhibit 32.1, which shall be deemed furnished.

| Exhibit No. | Description | Incorporated by Reference | | | |
|-------------|--|---------------------------|-------------|-------------|----------------|
| | | Form | Filing Date | Exhibit No. | Filed Herewith |
| 3.1 | Amended and Restated Certificate of Incorporation. | 10-Q | 7/29/2005 | 3.1 | |
| 3.2 | Amended and Restated Bylaws. | 10-Q | 4/24/2013 | 3.2 | |
| 4.1 | Specimen Common Stock Certificate. | 10-Q | 7/29/2005 | 4.1 | |
| 10.1 | * Form of Indemnification Agreement between Pain Therapeutics and each of its directors and officers. | S-1 | 3/14/2000 | 10.1 | |
| 10.2 | * 1998 Equity Incentive Plan and form of agreements thereunder. | S-1 | 3/14/2000 | 10.5 | |
| 10.3 | * Employment Agreement dated October 23, 2001, between Registrant and Nadav Friedmann, PhD. M.D. | 10-K | 3/22/2002 | 10.5 | |
| 10.4 | + Development and License Agreement dated December 19, 2002 between Registrant and DURECT Corporation and Southern Biosystems, Inc. | 10-K | 2/24/2006 | 10.10 | |
| 10.5 | + Amendment dated December 15, 2005 to Development and License Agreement dated December 19, 2002 between Registrant and DURECT Corporation and Southern Biosystems, Inc. | 10-K | 2/24/2006 | 10.11 | |
| 10.6 | * 2008 Equity Incentive Plan. | 8-K | 5/29/2008 | 10.1 | |
| 10.7 | * Form of Restricted Stock Unit Award Agreement under the 2008 Equity Incentive Plan. | 10-Q | 7/30/2008 | 10.2 | |
| 10.8 | * Form of Performance Share Award Agreement under the 2008 Equity Incentive Plan. | 10-Q | 7/30/2008 | 10.3 | |
| 10.9 | * Form of Restricted Stock Award Agreement under the 2008 Equity Incentive Plan. | 10-Q | 7/30/2008 | 10.4 | |
| 10.10 | * Form of Stock Option Award Agreement under the 2008 Equity Incentive Plan. | 10-Q | 7/30/2008 | 10.5 | |

| | | | | | | |
|---|---|---|------|------------|-------|---|
| 10.11 | * | Employment Agreement dated July 1, 1998 and amended December 17, 2008 between Registrant and Remi Barbier. | 10-K | 2/13/2009 | 10.12 | |
| 10.12 | * | 2000 Employee Stock Purchase Plan, as amended and restated. | 10-Q | 7/29/2010 | 10.1 | |
| 10.13 | | Lease agreement, dated as of February 14, 2011 between Registrant and StoneCliff Office, L.P. | 10-Q | 4/27/2011 | 10.1 | |
| 10.14 | * | Amendment Number 1 to the 2008 Equity Incentive Plan. | 10-Q | 8/1/2013 | 10.1 | |
| 10.15 | * | Amendment No. 2 to Employment Agreement between Registrant and Remi Barbier. | 10-Q | 8/1/2013 | 10.2 | |
| 10.16 | | Second Amendment to Lease Agreement, dated as of April 8, 2014 between Registrant and StoneCliff Office, L.P. | 10-Q | 8/6/2014 | 10.1 | |
| 10.17 | | Capital on Demand™ Sales Agreement, dated December 21, 2015 between Registrant and JonesTrading Institutional Services LLC. | 8-K | 12/22/2015 | 1.1 | |
| 23.1 | | Consent of Independent Registered Public Accounting Firm. | | | | X |
| 24.1 | | Power of Attorney (included in the signature page to this report). | | | | X |
| 31.1 | | Certification of Principal Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002. | | | | X |
| 31.2 | | Certification of Principal Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002. | | | | X |
| 32.1 | | Certifications of the Chief Executive Officer and the Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002. | | | | X |
| 101.INS | | XBRL Instance Document. | | | | X |
| 101.SCH | | XBRL Taxonomy Extension Schema Document. | | | | X |
| 101.CAL | | XBRL Taxonomy Extension Calculation Linkbase Document. | | | | X |
| 101.DEF | | XBRL Taxonomy Extension Definition Linkbase Document. | | | | X |
| 101.LAB | | XBRL Taxonomy Extension Labels Linkbase Document. | | | | X |
| 101.PRE | | XBRL Taxonomy Extension Presentation Linkbase Document. | | | | X |
| * Management contract, compensatory plan or arrangement. | | | | | | |
| + Portions of this Exhibit are subject to a confidential treatment order. | | | | | | |

(c) *Financial Statement Schedules*

All financial statement schedules are omitted because the information is inapplicable or presented in the notes to the financial statements.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

PAIN THERAPEUTICS, INC.

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

Dated: March 7, 2017

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Remi Barbier and Peter S. Roddy, and each of them, his true and lawful attorneys-in-fact, each with full power of substitution, for him in any and all capacities, to sign any amendments to this Annual Report on Form 10-K and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, hereby ratifying and confirming all that each of said attorneys-in-fact or their substitute or substitutes may do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

| Signature | Title | Date |
|---|---|---------------|
| <u>/s/ REMI BARBIER</u> Remi Barbier | President, Chief Executive Officer Chairman of the Board of Directors (Principal Executive Officer) | March 7, 2017 |
| <u>/s/ PETER S. RODDY</u> Peter S. Roddy | Vice President and Chief Financial Officer (Principal Financial and Accounting Officer) and Secretary | March 7, 2017 |
| <u>/s/ NADAV FRIEDMANN, PH.D., M.D.</u> Nadav Friedmann, Ph.D., M.D. | Chief Operating and Medical Officer and Director | March 7, 2017 |
| <u>/s/ ROBERT Z. GUSSIN, PH.D.</u> Robert Z. Gussin, Ph.D. | Director | March 7, 2017 |
| <u>/s/ MICHAEL J. O'DONNELL, ESQ.</u> Michael J. O'Donnell, Esq. | Director | March 7, 2017 |
| <u>/s/ SAIRA RAMASASTRY</u> Saira Ramasastry | Director | March 7, 2017 |
| <u>/s/ SANFORD R. ROBERTSON</u> Sanford R. Robertson | Director | March 7, 2017 |
| <u>/s/ PATRICK SCANNON, M.D, PH.D.</u> Patrick Scannon, M.D., Ph.D. | Director | March 7, 2017 |