# Advancing Pain Management



# To Our Shareholders:

Millions of Americans suffer from what is often the debilitating pain of osteoarthritis (OA), the most common joint disease in the United States. In the future, even more patients will be afflicted with OA because aging, obesity and joint injuries are all on the rise and are important risk factors for this condition. And the absence of truly effective medicines for OA means that many patients will progress to needing joint replacement. At Flexion, we are advancing our lead drug candidate, FX006, to address this large and growing patient need. FX006 is a sustained-release steroid that is injected into the knee and, in clinical trials to date, has demonstrated substantial and persistent pain relief. We are currently in the midst of pivotal registration trials for FX006, expect to complete them by the first half of 2016, and are on track thereafter for a New Drug Application (NDA) submission.

2014 was a transformational year for Flexion. We successfully completed our initial public offering of common stock in February and followed that with a second public stock offering in December, raising a combined total of more than \$173 million. With these funds, we were able to continue to make progress toward our goal of providing FX006 to the many patients who lack good pain relief options. Since the beginning of 2014, we have:

- Announced results of a successful Phase 2a clinical trial of FX006, which demonstrated that following a single injection of FX006, steroid lasts in the joint at therapeutic concentrations for at least 3 months;
- Initiated and completed enrollment in a pivotal, confirmatory Phase 2b clinical trial of FX006;
- Initiated enrollment in a Phase 3 clinical trial of FX006, the final step before submitting an NDA with the FDA;
- Strengthened our intellectual property portfolio through both an exclusive worldwide licensing agreement with Southwest Research Institute® to use proprietary manufacturing technology and U.S. Patent and Trademark Office issuance of a composition of matter patent for FX006 that provides protection into 2031.

We are proud of the successes we have achieved thus far in a short period of time. We plan to build on these in 2015 by announcing later this year the results of our pivotal Phase 2b trial and the completion of enrollment in our final, pivotal Phase 3 clinical trial of FX006. With plans to submit our NDA for FDA approval after the completion of the pivotal trials, FX006 could represent the first commercially available product in the Flexion pipeline and, if approved, would offer an important addition to the treatment armamentarium for patients with OA. This is all very consistent with our overarching goal of delivering medicines that matter to patients who can't get them soon enough.



Flexion achieves sustained release with a formulation of PLGA microspheres that slowly release active drug at the site of injection.

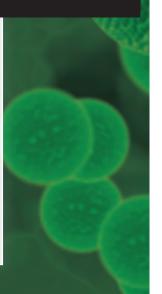
This results in therapeutic concentrations of drug in the joint for months while minimizing drug exposure in the blood. It enables long-lasting, local pain relief while avoiding systemic side effects, which remain a liability of many currently available therapies.



Fundamentally, our success comes down to our greatest asset, our people, and to their dedication in making a difference for patients and creating value for our shareholders. I thank you – our employees, shareholders, investigators, and clinical trial participants – for your continued support. With great anticipation, I look forward to updating you on our progress throughout the coming year.

pirchael D. Claymon, MO

Michael D. Clayman, MD President and CEO



# UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

# **FORM 10-K**

(MARK ONE)

☑ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2014

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**TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934** 

For the transition period from \_\_\_\_\_\_ to

Commission file number 001-36287

# **Flexion Therapeutics, Inc.**

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation or organization) 10 Mall Road, Suite 301

Burlington, Massachusetts (Address of principal executive offices)

26-1388364 (I.R.S. Employer Identification No.)

> 01803 (Zip Code)

(781) 305-7777

(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class

Name of each exchange on which registered

Common Stock, par value \$0.001 per share The NASDAQ Stock Market LLC Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes  $\square$  No  $\boxtimes$ .

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes  $\square$  No  $\boxtimes$ .

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes  $\boxtimes$  No  $\square$ 

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes  $\times$  No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of the registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.  $\boxtimes$ 

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company.

Large accelerated filer Accelerated filer Accelerated filer Smaller reporting company Smaller reporting company

Indicate by check mark whether the registrant is a shell company (as defined by Rule 12b-2 of the Exchange Act). Yes  $\square$  No  $\boxtimes$ 

The aggregate market value of the registrant's common stock held by non-affiliates of the registrant based on the last reported sales price of the common stock on June 30, 2014 was approximately \$89,394,000.

The number of outstanding shares of the registrant's common stock as of March 20, 2015 was 21,456,419.

# DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's proxy statement to be filed with the Securities and Exchange Commission pursuant to Regulation 14A in connection with the registrant's 2015 Annual Meeting of Stockholders, which will be filed subsequent to the date hereof, are incorporated by reference into Part III of this Form 10-K. Such proxy statement will be filed with the Securities and Exchange Commission not later than 120 days following the end of the registrant's fiscal year ended December 31, 2014.

# FLEXION THERAPEUTICS, INC. FORM 10-K—ANNUAL REPORT For the Fiscal Year Ended December 31, 2014

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#### PART I

### Special Note Regarding Forward-Looking Statements

This Annual Report on Form 10-K, or this Annual Report, contains "forward-looking statements"—that is, statements related to future, not past, events-as defined in Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act, that reflect our current expectations regarding our future development activities, results of operations, financial condition, cash flows, performance and business prospects, and opportunities, as well as assumptions made by, and information currently available to, our management. Forward-looking statements include any statement that does not directly relate to a current or historical fact. The Company has tried to identify forward-looking statements by using words such as "believe," "may," "could," "will," "estimate," "continue," "anticipate," "intend," "seek," "plan," "expect," "should," or "would." Among the factors that could cause actual results to differ materially from those indicated in the forward-looking statements are risks and uncertainties inherent in our business including, without limitation: we have incurred significant losses since our inception and we expect to incur substantial losses for the foreseeable future and may never achieve or maintain profitability; we have not generated any revenue from, or received regulatory approval for, any of our product candidates; we are a development stage company and will require additional capital prior to commercializing FX006 or any of our other product candidates; we have never completed a pivotal clinical trial for FX006 or any of our other product candidates and may be unable to successfully complete the development of, obtain regulatory approval for, or commercialize any of our product candidates; we rely on third parties to manufacture and conduct the clinical trials of our product candidates, which could delay or limit their future development or regulatory approval; we currently do not have the infrastructure to commercialize any of our product candidates if such products receive regulatory approval; we may be unable to adequately maintain and protect our proprietary intellectual property assets, which could impair our commercial opportunities; and other risks detailed below in "Item 1A. Risk Factors."

Although we believe that the expectations reflected in our forward-looking statements are reasonable, we cannot guarantee future results, events, levels of activity, performance or achievement. We undertake no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, unless required by law.

#### Item 1. Business

#### Overview

We are a specialty pharmaceutical company focused on the development and commercialization of novel, injectable pain therapies. We are targeting anti-inflammatory and analgesic therapies for the treatment of patients with musculoskeletal conditions, beginning with osteoarthritis, or OA, a type of degenerative arthritis. Our broad and diversified portfolio of product candidates addresses the OA pain treatment spectrum, from moderate to severe pain, and provides us with multiple opportunities to achieve our goal of commercializing novel, targeted pain therapies.

Our lead product candidate, FX006, is a first-in-class injectable, sustained-release, intra-articular, or IA, meaning "in the joint," steroid treatment for patients with moderate to severe OA pain. FX006 combines a commonly administered steroid, triamcinolone acetonide, or TCA, with poly lactic-co-glycolic acid, referred to as PLGA, to provide sustained therapeutic concentrations in the joint and persistent analgesic effect. We specifically designed FX006 to address the limitations of current IA therapies by providing long-lasting, local analgesia while avoiding systemic side effects, which are effects that occur throughout the body as a result of drug that is released from the site of injection into circulating blood. In a completed Phase 2b dose-ranging clinical trial, FX006 has demonstrated clinically meaningful and significantly better pain relief compared to the current injectable standard of care.

In April 2014, we initiated a pivotal Phase 2b clinical trial of FX006 to further identify a safe and welltolerated dose of FX006 that demonstrates superior pain relief to placebo. On September 16, 2014, the U.S. Food and Drug Administration, or FDA, notified us that it had placed a clinical hold on the FX006 investigational new drug application, or IND, due to a single occurrence of what was then reported as septic arthritis, an infection of the injected knee joint, in a patient in the clinical trial. We subsequently performed an investigation, which included product testing requested by the FDA, which demonstrated that the FX006 drug product was not contaminated. This is consistent with the fact that, to date, no production batch of FX006 has ever failed sterility testing. On October 28, 2014, we received notification that based on the highly atypical nature of the patient's clinical presentation as it relates to knee joint infection and the patient's subsequent clinical course, which was most consistent with rheumatoid arthritis, the principal investigator had changed the initial serious adverse event diagnosis from septic arthritis, possibly related to study drug treatment, to inflammatory arthritis, unrelated to study drug treatment. This information was promptly shared with the FDA. It is assumed that the original, and only, positive synovial fluid (fluid found in the cavity of a synovial joint, in this case the knee) culture obtained from this patient was a false positive, which occurs in approximately 5% of such cases. Thus there have been no confirmed diagnoses of septic arthritis and no serious adverse events related to drug treatment among the more than 400 patients treated with FX006 in all clinical trials to date. After reviewing the information we provided in response to the FDA's requests, on December 1, 2014, we received a letter from the FDA whereby they lifted the clinical hold on FX006. As a result we immediately resumed recruitment and dosing in the pivotal Phase 2b trial of FX006. In February 2015, we completed enrollment in the pivotal Phase 2b trial and we expect to report topline data in the fourth quarter of 2015.

In 2014, the FDA informed us that it will consider our on-going pivotal Phase 2b trial as one of two pivotal efficacy trials required for registration of a single-dose administration of FX006. In addition, the FDA informed us that a second placebo-controlled pivotal trial would be sufficient to support the filing of a new drug application, or NDA, for single-dose administration of FX006 and that data from a repeat-dose safety trial would not be required. In February 2015, we initiated the second required pivotal trial for FX006, a placebo-controlled Phase 3 trial, and expect to develop and file repeat-dose safety data in a supplemental NDA after an approval and launch of FX006 for single-dose administration.

We believe that FX006 has the potential to be a superior front line injectable treatment for OA pain management compared to existing therapies by providing safe, more effective and sustained pain relief to patients. We believe the following attributes make FX006 an attractive development candidate:

- A first-in-class injectable, IA, sustained-release treatment for patients with moderate to severe OA pain that has demonstrated in clinical trials to date the following:
  - clinically meaningful and significantly better pain relief compared to the current injectable standard of care,
  - persistent therapeutic concentrations of drug in the joint and durable efficacy, and
  - an attractive safety profile with limited systemic exposures and the potential for fewer side effects.
- Amongst the largest analgesic effects seen in OA clinical trials.
- Strong proprietary position through a combination of patents, trade secrets and proprietary know-how, as well as eligibility for marketing exclusivity.
- Well-defined Section 505(b)(2) of the Federal Food Drug and Cosmetic Act, or FDCA, regulatory pathway seeking approval for a novel formulation of the same dose of the already approved immediate-release steroid used by orthopedists and rheumatologists.
- Familiarity of orthopedists and rheumatologists with IA injections utilizing the same steroid in the same dose.
- Potential for pharmacoeconomic benefits due to superior efficacy and durability and the potential to delay costly and invasive total joint replacement, also referred to as total joint arthroplasty, or TJA.

Our other product candidates include FX007 for post-operative pain and FX005 for the treatment of endstage OA patients. FX007 is a locally administered TrkA receptor antagonist that is designed to provide persistent relief of post-operative pain, including in patients who have undergone TJA. We are conducting preclinical local pharmacology and toxicology experiments and plan to initiate a proof of concept, or PoC, clinical trial for FX007, following the generation of preclinical data. FX005 is a sustained-release p38 MAP, or mitogen-activated protein, kinase inhibitor which has both analgesic and anti-inflammatory effects. FX005 successfully completed a Phase 2a PoC clinical trial demonstrating significant pain relief and function improvement. We will continue to evaluate further development of FX005 taking into consideration, among other factors, our available capital resources.

We have worldwide commercialization rights to all of our product candidates. We also have an exclusive worldwide license agreement with Southwest Research Institute, or SwRI<sup>®</sup>, with respect to the use of SwRI<sup>®</sup>'s proprietary microsphere manufacturing technologies for certain steroids formulated with PLGA, including FX006. We intend to market our products in the United States through our own sales force targeting specialty physicians, including orthopedists and rheumatologists. Outside of the United States, we are exploring selective partnerships with third parties for the development and commercialization of our product candidates. Each of our product candidates and our PLGA formulation technology is protected through a combination of patents, trade secrets and proprietary know-how, and we intend to seek marketing exclusivity for any approved products.

OA is a type of degenerative arthritis that is caused by the progressive breakdown and eventual loss of cartilage in one or more joints. Arthritis is the most common cause of disability in the United States and OA is the most common joint disease, affecting 27 million Americans, with numbers expected to grow as a result of aging, obesity and sports injuries. Recent data suggest that OA accounts for over \$185 billion of annual healthcare expenditures in the United States, which does not include loss of productivity costs. We estimate that by 2030, 45 million people will have OA. OA commonly affects large weight-bearing joints like the knees and hips, but also occurs in the shoulders, hands, feet and spine. Patients with OA suffer from joint pain, tenderness, stiffness and limited movement. As the disease progresses, it becomes increasingly painful and debilitating, culminating, in many cases, in the need for TJA.

Current therapies for OA are suboptimal, and, because there is no cure for the disease, controlling pain and delaying surgery are the primary goals for treatment regimens. Oral drugs, such as non-steroidal antiinflammatory drugs, or NSAIDs, including COX II inhibitors and Cymbalta, as well as topical NSAIDs, are used to treat early-stage OA pain but have limited effect on pain and, given the amount and frequency of use in OA patients, are associated with serious side effects. For example, NSAIDs have shown increased risk of serious cardiovascular (CV) thrombotic events, myocardial infarction, and stroke. Furthermore, this class of drugs can cause serious gastrointestinal (GI) adverse events including bleeding, ulceration, and perforation of the stomach or intestines. These serious side effects are particularly worrisome because OA patients often have co-existing medical conditions, including diabetes and hypertension. For patients with moderate to severe OA pain, IA medicines, such as immediate-release steroids and hyaluronic acid, or HA, injected into the joint, are generally considered safe, but leave the joint rapidly and fail to produce or maintain meaningful pain relief. For patients who progress to end-stage OA, physicians prescribe opioids, which in addition to the risk of addiction, have numerous systemic side effects, such as respiratory depression, hypotension and constipation, and cause a higher incidence of falls and fractures in older OA patients. As a result of these suboptimal therapies, many OA patients experience persistent and worsening pain, which often culminates in the decision for TJA, a painful and expensive procedure. Further, because the initial joint replacement wears out over time, the younger the patient is at the time of the joint replacement, the more likely it is that he or she will require repeat surgery in their lifetime.

Our projections indicate that by 2030 approximately 23.5 million of the 45 million OA patients will have knee OA. According to IMS Health, each year over four million OA patients in the United States receive IA steroid injection treatments in the knee, hip, shoulder, hand and foot, with over three million of these being knee injections. In 2012, the number of patients that received knee injections of IA steroids increased approximately 12%. We estimate that an additional 1.3 million patients received knee injections of IA HA, which the FDA has approved for use only in the knee. Sales of HA in the United States were approximately \$700 million in 2013, the vast majority of which we believe were related to knee therapy. Our clinical trials to date have treated patients with knee OA, which represents the most common joint treated with IA therapies.

While worldwide sales of HA injections are approaching \$2 billion, recent negative guidance from specialty societies (e.g. the American Academy of Orthopedic Surgeons (AAOS) and the Osteoarthritis Research Society International (OARSI)) may begin to put downward pressure on HA sales. For example, Sanofi Biosurgery, which sells the market leading HA treatments, Synvisc and Synvisc-One, reported a 7.5% drop in U.S. net sales in 2014 when compared to 2013. This could be in part due to the fact that select payer groups have limited reimbursement for the entire class of HA products.

Given the limitations of current therapies, we believe FX006, if successfully commercialized, would provide an attractive therapeutic alternative. Clinical trials to date for FX006 have demonstrated clinically meaningful and significantly better pain relief compared to the current injectable standard of care, persistent therapeutic concentrations of drug in the joint and durable efficacy, and an attractive safety profile with limited systemic exposures and the potential for fewer side effects.

# **Our Strategy**

Our goal is to cost-effectively develop and commercialize novel therapies that will provide safe and substantial analgesia, or pain relief. Initially, we intend to develop a diverse portfolio of product candidates for the treatment of OA and post-operative pain where we believe there are significant unmet needs. The principal elements of our strategy to accomplish this goal are the following:

• Focus on novel product candidates that provide long-lasting analgesia locally while avoiding systemic side effects. We intend to develop anti-inflammatory and analgesic therapies for the treatment of patients with musculoskeletal conditions, beginning with OA and post-operative pain. Many OA patients will eventually require IA injection therapies to control their pain as the disease progresses. Currently available IA steroids, none of which are formulated for sustained-release, leave the joint

rapidly and confer pain relief that typically wanes after two to four weeks. Since, by medical practice, steroids are not injected more frequently than every three months, patients can experience months of pain during that time. While the benefits of HA injections generally last for a longer period of time than steroid injections, they are only marginally more effective than placebo. As a result, we believe there is a significant unmet medical need for persistent, effective and safe OA pain relief that can be addressed by IA sustained-release injection therapies. We have therefore formulated our IA product candidates, FX006 and FX005, with the goal of achieving effective drug concentrations in the joint for months, while avoiding significant plasma concentrations of drug that have been linked to systemic side effects. FX007 is being developed to treat post-operative pain and is being formulated to remain in the tissues for a sufficient period of time to provide adequate duration of pain relief.

- Mitigate development risk and expedite regulatory timeline to product approval. We seek to mitigate development risk by selecting product candidates with validated mechanisms of action. Each of our product candidates also utilizes a unique mechanism of action for achieving analgesia and/or anti-inflammatory effects, which diversifies development risk across multiple targets. In addition, for FX006 and FX005, our sustained-release technology employs PLGA delivery systems, which are already used in approved sustained-release drug products outside of OA and in approved surgical devices. Because FX006 incorporates an already approved steroid in PLGA, it qualifies for the Section 505(b)(2) NDA pathway under the FDCA, which can be an expeditious, cost-effective means to seek product approval, as well as to potentially expand indications for this product candidate. Section 505(b)(2) of the FDCA enables the applicant to rely, in part, on published literature or the FDA's findings of safety and efficacy for an existing product in support of its application.
- *Target multiple points in the OA pain treatment spectrum*. To maximize the likelihood of bringing products to market successfully, our product candidates target different elements of the OA treatment continuum. FX006 is targeted for front line IA therapy in patients with moderate to severe OA pain with the potential to replace IA steroids and HA. FX005 is targeted for patients who progress to end-stage disease as an alternative to opioids and FX007 is targeted for patients with post-operative pain, including those undergoing TJAs.
- *Retain commercial rights in the United States and selectively partner outside of the United States*. Because IA therapies in the United States are administered by a relatively small number of specialists, particularly orthopedists and rheumatologists, we believe that we can cost-effectively commercialize our product candidates, if approved, with our own specialty sales and marketing organization in the United States, and thereby retain more of the commercial value of these product candidates. In prior years, Genzyme Corporation, which has been acquired by Sanofi, supported sales of Synvisc utilizing a sales force of approximately 110 representatives. We believe we can establish an effective U.S. commercial organization with our own specialty sales force of approximately 60 to 100 representatives that target orthopedists and rheumatologists. Outside of the United States, we are exploring selective partnerships with third parties for the development and commercialization of our product candidates.

# Osteoarthritis

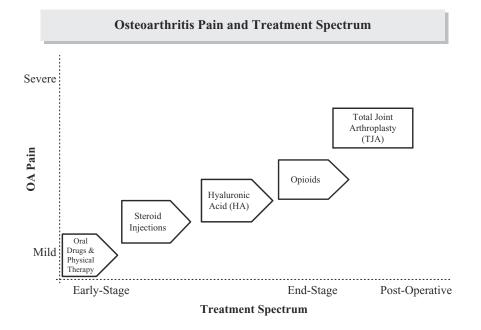
# **Overview**

OA, also referred to as degenerative joint disease, is the most common joint disease in the United States, affecting 27 million Americans, with numbers expected to grow as a result of aging, obesity and sports injuries.

- With the U.S. population between the ages of 45 and 64 having grown 31.5% from 2000 through 2010 and accounting for 26.4% of the total population, we expect changing demographics will likely contribute to a growing number of OA patients.
- Approximately 35.0% of U.S. adults are obese, which increases the risk of developing OA.
- Knee injury is common, particularly amongst young athletes, and increases the risk of developing OA by more than fivefold.

As an example, one in two Americans is expected to develop symptomatic knee OA, the most common form of OA, during their lifetime, according to the U.S. Centers for Disease Control and Prevention. Recent research estimates that the average age of physician-diagnosed knee OA has fallen by 16 years, from age 72 in the 1990s to age 56 in the 2010s. According to the same research, Americans between the ages of 35 and 84 in the early 2010s will account for approximately 6.5 million new cases of knee OA over the next decade.

There is no cure for OA. As a result, current treatments are intended to address symptoms, in particular relief of pain and improvement in functional status, and to delay TJA. The therapeutic regimen for OA becomes increasingly invasive with progression of the disease, culminating, in many cases, in TJA. In addition, because patients are being diagnosed with OA earlier in their lives, many patients will require repeat TJAs.



# Current Treatments for OA

*Early-Stage OA Treatments*. In early disease, treatment begins with non-pharmacologic therapy including exercise, weight control and physical therapy. As the disease progresses, physicians prescribe pharmacologic therapy, beginning with acetaminophen and progressing to oral NSAIDs, including COX II inhibitors, topical NSAIDs or Cymbalta. Available oral therapies have serious side effects. For example, Cymbalta may have a role in worsening depression and the emergence of suicidality in certain patients. In addition to their serious side effects, oral drugs provide limited pain relief and eventually become insufficient to control OA pain for many patients as the disease progresses.

*IA Injection Treatments.* When non-pharmacologic therapy and oral pain medications prove inadequate, physicians typically transition patients to IA injections. Steroids are first line IA therapy and when steroid therapy does not provide sufficiently durable pain relief, patients may progress to IA HA, a significantly more expensive, but currently reimbursable, therapy with only marginally greater effect than placebo. Triamcinolone acetonide, or TCA, the steroid used in FX006, is amongst the most commonly prescribed IA steroid injections. In 2012, the number of patients that received steroid injections in the knee, the most commonly injected OA joint, increased approximately 12.0% to 3 million patients. We estimate that approximately 1.3 million patients received knee injections of HA in 2012. Sales of HA in the United States in 2013 were approximately \$700 million, with a cost to the patient per treatment ranging from \$500 to \$1000. Worldwide, HA sales were approaching \$2 billion as of 2012.

*End-Stage Treatments*. When patients progress to the point where IA injection therapies fail to adequately control OA pain, physicians may prescribe opioids as a medicine of last resort.

*TJA and Post-Operative Pain Treatments.* Due to severe pain that can no longer be controlled therapeutically, many patients opt to have TJA, which is costly and painful. One of the most prevalent TJA procedures in the United States is total knee arthroplasty. Compared to existing drug therapy, total knee arthroplasty is very expensive, costing between \$25,000 and \$35,000 on average, and as many as 20.0% of patients are dissatisfied with the outcome of this procedure. The earlier a patient receives TJA, the more likely the patient may need repeat replacement surgery in following years. In 2009, inpatient costs exceeded \$9 billion per year in the United States for total knee arthroplasty alone and based on some estimates the number of total knee arthroplasties is expected to increase sixfold between 2011 and 2030. Our own market research has indicated that healthcare payors would be willing to reimburse additional OA therapies that have the potential to delay the need for TJA.

# Limitations of Current Treatments for OA

Current therapies for OA are suboptimal. Oral drugs, such as NSAIDs, while they may offer adequate analgesia for early-stage OA pain, are associated with serious side effects such as gastrointestinal bleeding and cardiovascular events, and, importantly, are eventually ineffective at managing OA pain as the disease progresses.

IA therapies, including steroids and HA preparations, are generally well-tolerated but provide pain relief that is insufficient or inadequate in duration. All IA therapies approved for OA are immediate-release suspensions or solutions that leave the joint within hours to days and are absorbed systemically, which may result in undesirable side effects. For example, IA immediate-release steroid injections are associated with elevation of blood glucose in diabetics, which can be of clinical concern. While IA steroids demonstrate large initial analgesic effects relative to other therapies, pain relief typically wanes after several weeks as a result of the IA steroids leaving the joint quickly. In addition, current standards of care dictate that IA steroid suspensions not be administered more frequently than once every three months. Based on internal analysis, we believe approximately 44.0% of patients receiving IA immediate-release steroids are unsatisfied with the duration of benefit.

Despite U.S. sales of over \$700 million in 2013, IA HA therapies, which are approved only for treatment in the knee, produce only marginally more effective pain relief than placebo and may have no discernible effect on a patient's ability to carry out their daily activities. In treatment guidelines for knee OA published in May 2013, the AAOS concluded that current published studies do not show any clinically effective response for HA injections. As a result, the guidelines do not recommend HA treatment for symptomatic knee OA and, most recently, certain insurance carriers are no longer providing policy coverage of HA and this may begin to put downward pressure on HA sales.

For patients with advanced disease, opioids are the medicine of last resort. Opioids, however, are associated with significant side effects, particularly when administered chronically. These side effects include serious dependency and abuse potential, respiratory depression and cardiac events and, increasingly, deaths from unintentional overdose.

For patients undergoing surgery, control of post-operative pain is an important priority. Numerous postoperative pain treatments exist, including local injection of existing drugs at the time of surgical wound closure, opioids, intravenous acetaminophen and NSAIDs and regional nerve blocks but these all have limitations in terms of inadequate magnitude and duration of pain relief, troublesome side-effects, such as increased risk of CV and GI events, or functional impairment.

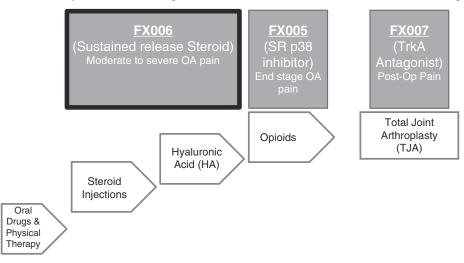
In sum, current therapies, for OA pain are inadequate and do not address the desire among physicians and healthcare payors to manage pain for longer periods of time, which can delay TJA. In addition, existing pain

therapies provide suboptimal post-operative pain relief. As such, we believe there is a significant commercial opportunity for (i) a front line IA therapy that is well-tolerated and can deliver significant and durable analgesia to patients with moderate to severe pain, (ii) a novel and potent analgesic IA therapy that can provide safe and effective pain relief for end-stage OA patients prior to TJA, and (iii) a novel therapy that safely provides persistent post-operative pain relief.

# **The Flexion Portfolio**

Our product candidates are designed to deliver established anti-inflammatory and analgesic effects directly to the site of disease, optimizing sustained local drug concentration to achieve a durable and clinically meaningful response. These product candidates are also designed to limit systemic exposure to the drugs and minimize systemic toxicities, a major concern in the many OA patients with comorbidities, which are co-existing medical conditions. We believe that our portfolio of product candidates has the potential to offer safe, durable pain relief and functional improvement for patients across the OA pain treatment spectrum. Moreover, by more effectively controlling and reducing pain over longer periods of time, our therapies, notably FX006, may result in delaying costly TJA procedures in OA patients.

Our sustained-release technology allows us to incorporate pharmaceuticals in PLGA microspheres for administration of FX006 and FX005. PLGA is a proven sustained-release delivery vehicle that is metabolized to carbon dioxide and water as it releases drug in the IA space and is used in approved drug products and surgical devices. The technology is designed to enable novel formulations of pharmaceuticals by providing controlled, sustained-release of drugs over time and the physical properties of the polymer-drug matrix can be varied to achieve specified drug loads and release rates. Key to the success of our IA therapies is the ability to maintain persistent therapeutic concentrations of drug in the joint, while minimizing systemic exposure. We believe we are the first company to administer PLGA microspheres into a human joint, and preclinical and clinical data suggest that FX006, as well as FX005, may provide local therapeutic concentrations that could last for at least three months and result in very low systemic concentrations of drug. The Phase 2a clinical trial of FX006 provides direct evidence that following a single injection, therapeutic concentrations of TCA are maintained locally (in the joint) for at least six weeks, while very low concentrations of TCA enter systemic circulation. Furthermore, clinical data from the completed Phase 2b dose-ranging clinical trial of FX006 and the Phase 2a clinical trial of FX005 suggest that following a single injection, both drug candidates can provide local pain relief and functional improvement for 12 weeks while producing very low systemic concentrations and attractive systemic safety profiles. Together these data suggest that the local delivery of drug from PLGA microspheres as demonstrated by FX006 and FX005 has the potential to sustain prolonged, local therapeutic effects while reducing the potential for systemic side effects.



Our portfolio currently consists of three product candidates which address the OA treatment spectrum:

- FX006 is an intra-articular, sustained-release steroid treatment that combines TCA with PLGA to provide sustained therapeutic concentrations in the joint and persistent analgesic effect, and was specifically designed to address the limitations of current IA therapies by providing long lasting, local analgesia while avoiding systemic side effects. In a completed Phase 2b dose-ranging clinical trial, FX006 demonstrated clinically meaningful and significantly better pain relief compared to the current standard of care and was very well-tolerated.
- FX007 is a preclinical, small-molecule TrkA receptor antagonist designed to address post-operative pain. We are conducting preclinical local pharmacology and toxicology experiments and plan to initiate a PoC clinical trial for FX007 following the generation of additional preclinical data.
- FX005 is a sustained-release p38 MAP, or mitogen-activated protein, kinase inhibitor that has both analgesic and anti-inflammatory properties. In a Phase 2a PoC clinical trial, FX005 demonstrated significant effects on both pain relief and functional improvement and was very well-tolerated. We believe FX005 may prove to be an effective therapy for OA patients with end-stage disease.

The following chart illustrates the current status of development of our product candidates, for which we have worldwide commercialization rights:

Program	Indication	Preclinical	Phase 1	Phase 2	Phase 3
FX006 Sustained - release Steroid	Moderate to severe OA Pain				
FX007 TrkA Antagonist	Post - operative Pain				
FX005 Sustained - release p38 Inhibitor	End -stage OA Pain				

We believe our product candidates and technology will be protected primarily through a combination of patents, trade secrets and proprietary know-how, and we intend to seek marketing exclusivity for any approved products. A composition of matter patent has been issued by the United States Patent and Trademark Office, or U.S. PTO, for FX006, with a patent term into 2031. Method of manufacturing and method of use claims have been filed in Divisional applications. Considerable expertise and effort was required to carry out the large body of original work underlying the formulation of FX006, including experimenting with, and observing the effects of over 50 steroid and PLGA formulations. We believe our extensive know-how and trade secrets relating to the manufacturing process for FX006, including those that relate to precise pharmaceutical release profiles, represent a competitive advantage.

### FX006—Front Line IA Therapy for Patients with Moderate to Severe OA Pain

# Overview

FX006 is a steroid, TCA, formulated for sustained-release, delivered via IA injection and designed to treat moderate to severe OA pain. FX006 combines commonly administered TCA with PLGA, the cornerstone of our injectable IA sustained-release technology.

To date, three clinical trials have been completed to test FX006 against immediate-release TCA injection. A total of 302 patients were enrolled in these three clinical trials, of which 236 patients received FX006 and 66

patients received immediate-release TCA. In a completed Phase 2b dose-ranging clinical trial of patients with knee OA, FX006 demonstrated clinically meaningful and significant improvements in pain relief and functional status relative to a commercially available 40 mg immediate-release TCA. Data from this completed 12-week Phase 2b dose-ranging clinical trial show that FX006 has a well-tolerated systemic safety profile that is indistinguishable from the standard of care immediate-release steroid. Further, the local safety profile for FX006 in the completed 12-week Phase 2b dose-ranging clinical trial was attractive and comparable to that seen with the same dose of immediate-release steroid comparator.

Our clinical data suggest that IA administration of FX006 produces a more controlled-release of TCA from the site of injection than immediate-release TCA, prolonging local exposure to TCA while reducing systemic exposure. A pharmacodynamic clinical trial has also demonstrated that FX006 avoids the marked suppression of the hypothalamic-pituitary-adrenal, or HPA, axis (which determines the body's ability to make its own naturally occurring steroids) seen with commercially available steroid suspensions. Preclinical data demonstrate that single doses are well tolerated and, in an inflammatory arthritis rat model, have the potential to prevent joint damage more effectively than the immediate-release comparator. We have conducted two pharmacokinetic clinical trials that compared the duration of FX006 to immediate-release TCA in the joint by measuring synovial fluid concentrations in patients with OA following a single IA administration. TCA concentrations in the joint were determined at 6, 12, 16 and 20 weeks following injection depending on the trial design. The data from these clinical trials show that at 6 and 12 weeks, both the FX006 10 mg and 40 mg dose groups had measurable concentrations of drug in synovial fluid. In contrast, the 40 mg immediate-release TCA dose group at 6 and 12 weeks had concentrations of drug that were below the lower limit of quantitation. The FX006 40 mg dose group also demonstrated readily measurable concentrations of drug at 16 weeks, which fell to below the lower limit of quantitation at 20 weeks. These data, in part, will be used to define the dosing interval for repeat injection.

We are conducting a pivotal Phase 2b clinical trial of FX006 and expect to report topline data for the trial in the fourth quarter of 2015. In 2014, the FDA informed us that it will consider our on-going pivotal Phase 2b trial as one of two pivotal efficacy trials required for registration of a single-dose administration of FX006. In addition, the FDA informed us that a second placebo-controlled pivotal trial would be sufficient to support the filing of an NDA for single-dose administration of FX006 and that data from a repeat-dose safety trial would not be required. In February 2015, we initiated the second required pivotal trial for FX006, a placebo-controlled Phase 3 trial and expect to report topline data in the first half of 2016. We expect to develop and file repeat-dose safety data in a supplemental NDA after an approval and launch of FX006 for single-dose administration.

We have a composition of matter patent in the United States that covers FX006 and has an expiration date in 2031. The FX006 composition of matter patent is the result of several unique discoveries relating to a narrow drug load specification, a certain release profile of polymers, specific polymer weights and ratios and clinical efficacy observed within a dose range.

### FX006 Development Program

*Study FX006-2011-001.* In June 2013, we announced results from a Phase 2b dose-ranging clinical trial in 228 patients with knee OA assessing the safety, tolerability and efficacy of FX006. The clinical trial was conducted at a total of 22 sites in Australia, Canada and the United States. The objective of the study was to identify a safe and well-tolerated dose of FX006 that demonstrates superiority to immediate-release TCA and to provide an assessment of the magnitude and duration of pain relief, while differentiating it from current front line IA therapy.

229 patients were randomized and 228 patients were treated with a single IA injection of 10, 40, or 60 mg of FX006 or 40 mg of immediate-release TCA, the labeled dose and current standard of care. Each patient was evaluated for a total of 12 weeks. The primary outcome measure was the weekly mean of the average daily pain intensity score as assessed using an 11-point numerical rating scale, with zero being "no pain" and 10 being "pain as bad as you can imagine." The primary efficacy endpoint was the change from baseline to each of weeks 8, 10

and 12 for that primary outcome measure. Secondary endpoints included change from baseline in the primary outcome measure for each week not addressed in the primary endpoint, time to onset of analgesia, responder status, pain, stiffness and function measured using the Western Ontario and McMaster Universities Osteoarthritis Index, known in the industry as WOMAC, patient global impression of change, or PGIC, clinical global impression of change, or CGIC, and rescue medication consumption.

The responder status endpoint was based upon three responder analyses:

- the proportion of patients meeting the OMERACT-OARSI (Outcome Measures in Rheumatoid Arthritis clinical trials-Osteoarthritis Research Society International) responder criteria which uses a combination of pain, function and patient assessment to derive a composite endpoint,
- the proportion of patients achieving a greater than 30% improvement from baseline in the primary outcome measure, and
- the proportion of patients achieving a greater than 20% improvement from baseline in the primary outcome measure.

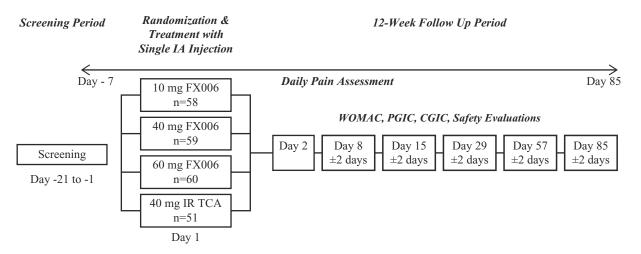
The rescue medication consumption endpoint was based upon the mean number of rescue medication tablets (i.e. acetaminophen) used per week to provide additional pain relief.

The WOMAC Osteoarthritis Index is an osteoarthritis-specific questionnaire completed by the patient that consists of 24 questions covering the areas of pain, stiffness and physical function.

PGIC is a single-item questionnaire that uses a 7-point scale (1= very much improved; 7= very much worse) to measure the patient's impression of change regarding his or her overall status.

CGIC is a single-item questionnaire that uses a 7-point scale (1= very much improved; 7= very much worse) to measure the physician's impression of change regarding a patient's overall status.

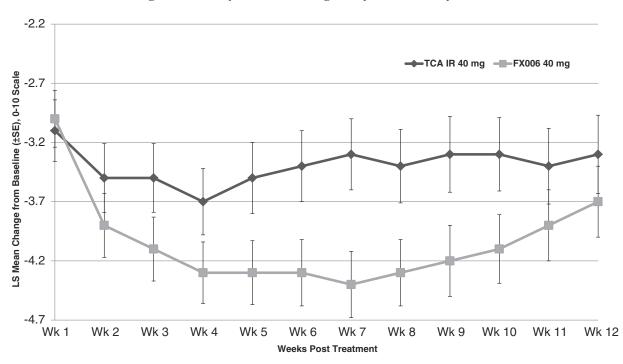
The clinical trial design of our completed Phase 2b dose-ranging clinical trial for FX006 is outlined as follows:



Treatment arms were well-balanced with respect to demographic and baseline characteristics, with a mean baseline average daily pain score of 6.4 to 6.6. With respect to the primary outcome measure, the FX006 40 mg dose was significantly better than immediate-release TCA at improving pain relief beginning at week 5 and continuing to week 10 (p<0.05 at each time point) (see Figure 1). The FX006 40 mg dose also demonstrated significant improvement compared to immediate-release TCA in the average change from baseline in the primary

outcome measure across weeks 1 to 12 (p=0.0382) (see Figure 1) and in key secondary outcomes including pain, stiffness, function, PGIC, CGIC and responder status at week 8 (p<0.05). The 10 mg dose of FX006 produced effects in the primary outcome measure that were consistently improved relative to immediate-release TCA but of lessor magnitude than those produced by the 40 mg dose. In clinical trials, the "p-value" is the probability that the result was obtained by chance. For example, a "p-value" of 0.10 would indicate that there is a 10% likelihood that the observed results could have happened at random. By convention, a "p-value" that is less than 0.05 is considered statistically significant.

The performance of the 60 mg dose in the primary outcome measure and secondary outcome measure did not represent a material improvement relative to the 40 mg dose, and following week 6 the 60 mg dose was numerically inferior to the 40 mg dose (see Figure 2). Based on subsequent investigation, we believe that the inferior pain relief achieved by the 60 mg dose compared to lower doses of FX006 after week 6 was the result of the increased concentration of PLGA microspheres in the 60 mg dose. Following injection, we expect this resulted in aggregates. Aggregation is associated with a more acidic microenvironment which results in accelerated degradation of PLGA microspheres, causing premature release of TCA. We have separately observed in our synovial pharmacokinetic study (see Figure 5) that TCA concentrations in joint fluid six weeks after injection of 60 mg of FX006 are substantially lower than that seen with the 40 mg dose. Taken together, we believe that the inferior pain relief achieved by the 60 mg dose compared to lower doses of FX006 after week 6 reflects the likelihood that the majority of TCA in the 60 mg dose group was released in the first six weeks. In this exploratory dose-ranging study, the statistical analysis assumed that the magnitude of pain relief would increase with dose. This was not the case and, for that reason, the primary endpoint was not achieved.





# indicates p<0.1 for comparison of FX006 40 mg compared with immediate-release TCA; \* indicates p<0.05; \*\* indicates p<0.01

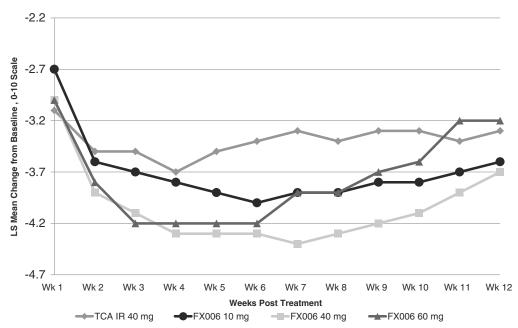


Figure 2: Weekly Mean of Average Daily Pain Intensity Scores

All treatments were well-tolerated and there were no drug-related serious adverse events (see Figure 3). Adverse events, or AEs, were generally mild to moderate and unrelated to study drug. Local knee-related AEs, laboratory assessments, electrocardiograms and vital signs were unremarkable and similar across all treatments.

	FX006 10 mg N=58 n (%)	FX006 40 mg N=59 n (%)	FX006 60 mg N=60 n (%)	TCA IR 40 mg N=51 n (%)
Number of Patients with at Least 1 TEAE <sup>†</sup>	27 (46.6)	33 (55.9)	34 (56.7)	28 (54.9)
Number of Patients with at Least 1 Serious TEAE	0	2 (3.4)*	1 (1.7)#	0
Number of Patients with at Least 1 TEAE Leading to				
Study Withdrawl	1 (1.7)	0	0	0
Number of Patients with TEAEs by Maximum				
Severity				
Mild	17 (29.3)	20 (33.9)	19 (31.7)	14 (27.5)
Moderate	9 (15.5)	13 (22.0)	15 (25.0)	12 (23.5)
Severe	1 (1.7)	0	0	2 (3.9)
Number of Patients with TEAEs by Maximum				
Relationship				
Not Related	17 (29.3)	24 (40.7)	22 (36.7)	15 (29.4)
Unlikely	3 (5.2)	4 (6.8)	5 (8.3)	4 (7.8)
Possibly Related	3 (5.2)	2 (3.4)	4 (6.7)	3 (5.9)
Probably Related	2 (3.4)	3 (5.1)	2 (3.3)	5 (9.8)
Definitely Related	2 (3.4)	0	1 (1.7)	1 (2.0)
Possibly, Probably, or Definitely Related	7 (12.1)	5 (8.5)	7 (11.7)	9 (17.6)

# Figure 3: FX006 Phase 2b—Summary of Adverse Events

<sup>†</sup> TEAE = Treatment Emergent Adverse Event

\* Coronary artery disease and stroke-both judged to be not related to drug treatment

# Axillary abscess—judged to be not related to drug treatment

# Studies FX006-2011-002 and FX006-2013-005.

We completed two Phase 2a multi-center clinical trials in patients with OA, evaluating systemic pharmacokinetics, systemic pharmacodynamics, and/ or local pharmacokinetics (in the synovial fluid of the joint) of FX006 compared to immediate-release TCA.

FX006-2011-002 was a double-blind study in which 24 patients were randomized to single IA injections of 10, 40, or 60 mg of FX006 or 40 mg of immediate-release TCA. Each patient was evaluated for a total of six weeks following treatment. Safety was evaluated and specimens were collected for plasma drug concentration and cortisol (the body's naturally occurring steroid) measurements during one 48-hour in-patient period (day 1-2), two 24-hour in-patient periods (days 14-15 and 42-43) and seven out-patient visits (days 3, 4, 5, 8, 22, 29 and 36). Synovial fluid was also collected via aspiration on day 1 just prior to study treatment administration and again at week 6.

FX006-2013-005 was an open-label study initiated following the completion of Study FX006-2011-001 (Phase 2b dose-ranging study), in which it was demonstrated that therapeutic effect at a 40 mg dose of FX006 persisted for at least 12 weeks. The purpose of study FX006-2013-005 was to establish duration of exposure to TCA from FX006 in the joint, and in so doing, support the definition of dosing interval for repeat administration. Fifty patients with OA of the knee were assigned sequentially to one of five groups to receive a single IA injection of either 10 or 40 mg of FX006 or 40mg of immediate-release TCA. Synovial fluid was collected via aspiration on day 1 just prior to study treatment administration, and again at weeks 12, 16 or 20 depending on the group assignment.

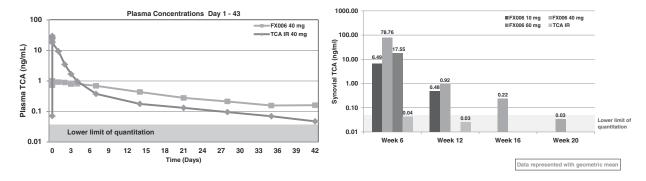
In combination, these two studies provide the following characterization of the pharmacokinetics and pharmacodynamics of FX006 relative to immediate-release TCA, the current standard of care:

- The 40 mg dose of FX006 produced maximal plasma concentrations (peak plasma concentrations measured over the given sampling period) that were 30-fold lower than immediate-release TCA (see Figure 4).
- During the first three days following injection (the period during which maximal plasma concentrations occur), the immediate-release TCA 40 mg dose reduced serum cortisol by almost 90%. In contrast, the FX006 40 mg dose produced a reduction of approximately 40% in serum cortisol, a magnitude that is typically not associated with adverse effects.
- Direct measures in synovial fluid of TCA concentrations at weeks 6, 12, 16 and 20 demonstrated the following (see Figure 5):
  - At weeks 6 and 12, immediate-release TCA produced synovial fluid concentrations of TCA that were below the level of quantitation.
  - At weeks 6, 12 and 16, the 40 mg dose of FX006 was associated with measurable levels of TCA. At week 20, the level of TCA dropped below the level of quantitation.
  - At week 6 and 12, the 10 mg dose of FX006 produced measurable concentrations that were less than those produced by the 40 mg dose.
  - The 40 mg dose of FX006 was associated with synovial TCA concentrations at weeks 12, 16 and 20 which we believe are permissive of re-administration.

Overall, these results suggest that IA administration of FX006 produced a more controlled-release of TCA from the site of injection, prolonging local exposure to TCA while reducing systemic exposure to TCA relative to immediate-release TCA. While synovial fluid concentrations produced by 40 mg of FX006 at weeks 12 and beyond are permissive of repeat administration, the final definition of dosing interval will take into account the persistence of analgesic effect beyond 12 weeks. The ongoing pivotal Phase 2b and Phase 3 clinical trials will assess efficacy through week 24.

#### Figure 4. Plasma TCA Concentrations over Time

#### Figure 5. Synovial Fluid Concentrations at Day 43



# **Other On-Going and Planned Studies**

In April 2014, we initiated a pivotal Phase 2b clinical trial of FX006 to further identify a safe and welltolerated dose of FX006 that demonstrates superior pain relief compared to placebo. The pivotal Phase 2b clinical trial is a multi-center, randomized, double-blind study in 310 patients with OA of the knee and will assess the safety, tolerability and efficacy of certain doses of FX006. Patients are randomized and treated with a single injection of FX006 (20 mg and 40 mg doses are being tested) or placebo and will be evaluated for up to 24 weeks. The primary outcome measure will be the weekly mean of the average daily pain intensity score as assessed using an 11-point numerical rating scale. Secondary endpoints will include WOMAC, PGIC, CGIC, time to onset of pain relief, rescue medication consumption and responder status. We completed enrollment in February 2015 and expect to receive top-line data from the trial in the fourth quarter of 2015.

In February 2015 we initiated a Phase 3 trial of FX006. The Phase 3 clinical trial of FX006 is an international, multi-center, randomized, blinded, single-dose study in 450 patients with OA of the knee. It will have three arms that include a 40 mg dose of FX006, placebo and a 40 mg dose of immediate-release TCA, and patients will be evaluated for a total of 24 weeks. The primary objective of the trial will be to provide the second pivotal efficacy dataset against placebo at 12 weeks for an NDA submission. In addition, the trial will provide a key comparative dataset against the current standard of care, immediate-release TCA. Specifically, the primary outcome measure will be the weekly mean of the average daily pain intensity score compared to a placebo at 12 weeks using an 11-point numerical rating scale. Secondary and additional outcome measures include a comparison to immediate-release TCA with regard to the weekly mean of the average daily pain intensity score at 8, 10 and 12 weeks, WOMAC, PGIC, CGIC, time to onset of pain relief, rescue medication consumption and responder status. We expect to report topline data from this trial in the first half of 2016.

#### FX006 Regulatory Strategy

In 2014, the FDA informed us that it will consider our on-going Phase 2b trial of FX006 as one of two pivotal efficacy trials required for registration of a single-dose administration of FX006. In addition, the FDA informed us that a second placebo-controlled pivotal trial would be sufficient to support the filing of an NDA for single-dose administration of FX006 and that data from a repeat-dose safety trial would not be required. In February 2015, we initiated a placebo-controlled Phase 3 trial of FX006 and expect to develop and file repeat-dose safety data in a supplemental NDA after an approval and launch of FX006 for single-dose administration.

# FX007—For Post-Operative Pain

# Overview

FX007 is a small molecule TrkA receptor antagonist that is in development for the persistent relief of postoperative pain. TrkA is the receptor for nerve growth factor, commonly known as NGF, a small peptide that is released following tissue injury. NGF binds to TrkA on the surface of pain sensing neurons and renders these cells more responsive to external stimuli. In recent clinical trials of Pfizer's monoclonal antibody, tanezumab, systemic blockade of NGF demonstrated marked analgesia in a variety of painful conditions. Additionally, human genetic studies demonstrated that patients with a mutation in the TrkA gene have congenital insensitivity to pain. These data indicate that interruption of the NGF-TrkA pathway produces a profound analgesic effect, and in preclinical pharmacology experiments, FX007 has demonstrated both high affinity for the TrkA receptor and analgesic effects in OA and post-operative pain. However, systemic and persistent blockade of NGF with monoclonal antibodies has been associated with rapidly progressive OA requiring TJA. FX007 is being developed for acute, local administration, which has the potential to avoid side effects associated with chronic systemic use.

Post-operative pain is usually most severe in the first few days following the completion of a surgical procedure and is a response to tissue damage during surgery which stimulates peripheral nerves that signal the brain to produce a sensory and physiological response. Numerous studies reveal that the incidence and severity of post-operative pain is primarily determined by the type of surgery, duration of surgery and the pain treatment choice following surgery.

Unrelieved acute pain causes patient suffering and can lead to other complications, which delays recovery from surgery and may result in higher healthcare costs. This is particularly true with respect to post-operative TJA pain, which can compromise rehabilitation and result in poor outcomes. According to the Agency for Healthcare Research and Quality, aggressive prevention of the onset of pain is better than treatment of pain because, once established, pain is more difficult to suppress. Current multimodal therapy for post-operative pain includes administration of local anesthetics to the wound combined with the systemic administration of opioid and NSAID analgesics. Opioids are associated with a variety of unwanted and potentially severe side effects, such as respiratory depression, hypotension and constipation, and many physicians seek alternatives to opioids for their patients. These side effects may require additional medications or treatments and prolong a patient's stay in the post-anesthesia care unit and the hospital or ambulatory surgery center, thereby increasing costs significantly. The use of injectable NSAIDs, such as ketorolac and ibuprofen, is severely limited in the post-operative period because they increase the risk of bleeding and gastrointestinal and renal complications.

There are approximately 51 million surgeries performed in the United States each year, and the global postoperative pain market was estimated to be \$5.9 billion in 2010. Despite the size of this market, however, postoperative pain management remains a challenge for healthcare providers, with studies reporting that up to 80% of patients experience inadequate pain relief after surgery. Given the limitations of current post-operative therapies, we are developing FX007 as a superior alternative to manage post-operative pain. The blockade of the NGF-TrkA pathway results in highly effective analgesia. Additionally, acute local administration has the potential to avoid the side-effects associated with systemic and persistent blockade of NGF.

# FX007 Development Program

FX007 is being developed to treat post-operative pain with target analgesia of at least 36 to 72 hours and is being formulated to remain in the tissues for a sufficient period of time to provide this duration of pain relief. We are conducting preclinical local pharmacology and toxicology experiments and plan to evaluate a PoC clinical trial for FX007 following the generation of these data.

# FX005—For End-Stage OA Pain

# **Overview**

FX005 is intended as therapy for patients with end-stage OA pain, particularly those patients awaiting TJA, as an alternative to opioids. FX005 is a p38 MAP kinase inhibitor formulated for sustained-release delivered via IA injection, which is designed to have both analgesic and anti-inflammatory benefits without the systemic side effects of oral p38 MAP kinase inhibitors. p38 MAP kinase is an enzyme in an inflammatory cascade that up regulates in response to stress and culminates in the elaboration of multiple proinflammatory cytokines, including interleukin 1 and tumor necrosis factor, as well as enzymes like matrix metalloproteinases that have the potential to destroy cartilage. In other studies, multiple oral p38 MAP kinase inhibitors have been evaluated in

inflammatory diseases and pain and, while efficacy has been demonstrated, serious toxicity affecting multiple organ systems has been frequently observed. For example, a recent clinical study of an orally administered p38 MAP kinase inhibitor in OA demonstrated pain relief comparable to oxycodone but was associated with concerning side effects, including QTc prolongation which could increase the risk of arrhythmias. Because FX005 leverages the same PLGA technology used in FX006 in order to achieve persistent therapeutic concentrations of drug in the joint while maintaining very low plasma concentrations, it may have the potential to provide durable pain relief while avoiding p38 MAP kinase inhibitor systemic side effects. We believe the preclinical and clinical data we have generated to date support this potential.

We have a composition of matter patent in the United States that covers the p38 MAP kinase inhibitor and has an expiration date in 2028. We have also filed a composition of matter patent application on a novel formulation for FX005, which, if issued as a patent, is expected to expire in 2029. Like FX006, we have manufacturing know-how and trade secrets that we believe will provide us with additional proprietary advantages for FX005.

# FX005 Development Program

In May 2012, FX005 completed a Phase 2a clinical trial in which 70 patients were randomized to FX005 and 70 patients were randomized to placebo. The Phase 2a clinical trial demonstrated positive effects of FX005 on both pain and function. These effects increased substantially in a sub-population of patients with higher baseline pain scores.

*Study FX005-2010-001.* A Phase 2a clinical trial in 140 patients with knee OA was conducted as a multicenter, randomized, double-blind, placebo-controlled trial and consisted of a single ascending dose phase, or SAD phase, followed by a single-dose PoC phase . In the SAD phase of the study, escalating doses of 1, 10, and 45 mg of FX005 were compared to blank PLGA microspheres and diluent in three cohorts of twelve patients, with six patients receiving FX005, three patients receiving blank PLGA microspheres and three patients receiving diluent in each cohort. Diluent is a placebo containing all components of the FX005 formulation except the active drug and the PLGA microspheres. Each patient in the SAD phase was followed for safety and pharmacokinetics for six weeks after a single IA injection. FX005 was well-tolerated at each dose level and, as a result, the highest dose of 45 mg was advanced to the next phase.

In the PoC phase, 52 patients were randomized to receive 45 mg of FX005, 26 patients were randomized to receive blank PLGA microspheres as a placebo control, and 26 patients were randomized to receive diluent as a placebo control, each as a single IA injection. Each patient was followed for 12 weeks after the injection for safety, pharmacokinetics, and efficacy. The primary endpoint was the change from baseline in the WOMAC pain subscale at four weeks. Secondary efficacy assessments included the WOMAC function subscale and responder status. FX005 demonstrated pain relief and functional improvement at four weeks, and the absolute magnitude of effect in both subscales was persistent through 12 weeks. These effects were substantially enhanced in a prespecified exploratory subset analysis of patients with high baseline pain. FX005 also demonstrated efficacy in responder analysis. Overall, FX005 was well-tolerated systemically and local tolerability was similar to that documented for marketed HA preparations.

Repeat-dose toxicology studies demonstrated that FX005 can be associated with synovial inflammation, articular cartilage damage and alterations to joint structure. These findings were not present in animals treated with blank PLGA microspheres, so toxicity appears to be specific to the p38 MAP kinase inhibitor itself. To guide the appropriate future development path for FX005, additional toxicology studies using lower doses of FX005 were conducted to determine the appropriate dose level.

These additional toxicology studies showed that at the human equivalent dose of 3 and 1 mg, there was no evidence of the damage to cartilage that had been associated with doses greater than or equal to 10 mg. Based on this, we expect that any further development of FX005, if any, would involve a dose substantially lower than the

doses studied in the previously-conducted Phase 2a clinical trial. We will continue to evaluate further development of FX005 taking into consideration, among other factors, our available capital resources.

# Manufacturing

We believe that the multifaceted nature of PLGA manufacturing and the limited number of capable contract manufacturing companies that offer PLGA manufacturing provides a competitive advantage. The technology is designed to enable novel formulations of pharmaceuticals by providing controlled, sustained-release of drugs over time and the physical properties of the polymer-drug matrix can be varied to achieve specified drug loads and release rates.

We currently do not have manufacturing facilities and thus utilize contract manufacturers to produce our drug substances and drug products used for preclinical and clinical supplies. Manufacture of PLGA microspheres is a complex process and there are a limited number of contract manufacturing sites with PLGA experience. Our injectable IA immediate-release technology allows us to incorporate pharmaceuticals in PLGA microspheres for administration of FX006 and FX005. Following extensive development programs, we have generated formulations of FX006 and FX005 designed to sustain local concentrations of drug in the joint for several months. The FX005 and FX006 microsphere PLGA formulations have gone through numerous iterations and have been optimized to provide a controlled diffusion of drug over an extended period of time. In developing this unique combination of manufacturing process and formulation, we have established numerous trade secrets that relate to precise pharmaceutical release profiles.

*FX006.* The active pharmaceutical ingredient in FX006, TCA, is manufactured and supplied by Farmabios SpA in accordance with current good manufacturing practice standards, or cGMP. This supplier is subject to regular inspections by the FDA. The microspheres finished product is manufactured by Evonik Corporation, or Evonik. Evonik is a global, commercial-scale supplier of cGMP-compliant bioabsorbable polymers for a wide variety of medical devices and implantable/injectable sustained-release products. Their materials are components of marketed pharmaceutical and medical device products in the United States, Europe, India and Asia.

*FX007.* The active ingredient for FX007 is manufactured by AstraZeneca. Existing inventory of drug substance is from AstraZeneca and is suitable for preclinical and early clinical development. We are in the process of identifying a new supplier to manufacture drug substance for use in later-phase manufacture of clinical supplies and commercial product.

*FX005*. The drug substance in FX005 is currently manufactured by Cambridge Major Laboratories. The microsphere-based finished drug product and associated diluent are manufactured by Evonik.

# **Commercial Strategy**

We intend to build a commercial infrastructure in the United States to effectively support the commercialization of FX006, FX007 and FX005, in advance of anticipated drug approval of FX006. We believe that we can cost effectively promote FX006 to the approximately 9,000 orthopedists and rheumatologists who perform more than 75% of OA treatment injections in the United States with a targeted, sales force of approximately 60 to 100 representatives. Support for this team will include sales management, internal sales support, distribution support, and an internal marketing group. Additional requisite capabilities will include focused management of key accounts such as managed care organizations, group purchasing organizations, and government accounts.

Of patients who are treated for OA, it is estimated that 70% of OA patients receive IA injections from orthopedic surgeons and or sports medicine specialists. An additional 6% and 7% of patients receive IA injections from physical medicine and rehabilitation (PM&R) specialists and rheumatologists, respectively. Finally, the remaining 17% of IA injections are administered by a wider array of physicians, the largest subgroup

being general practitioners. We believe we can effectively cover all specialties and successfully execute our future commercial plans using a cost-efficient strategy, particularly given that orthopedists and rheumatologists are familiar with IA injections utilizing the same steroid in the same dose.

FX006 demonstrates clinically meaningful and significantly better pain relief and functional status compared to a commercially available immediate-release TCA. We believe FX006's prolonged analgesia may delay the need for TJA, a costly, highly-invasive procedure with a protracted recovery time. Our own market research has indicated that healthcare payors would be willing to reimburse any additional OA therapies that have the potential for pharmacoeconomic benefits reflecting differential efficacy and durability and the potential to delay costly and invasive TJAs. As a result of both increased patient satisfaction and the potential to delay TJA, we believe FX006 will be priced competitively with existing HA therapies.

Outside of the United States, we are exploring selective partnerships with third parties for the development and commercialization of our products.

# Competition

#### **Overview**

Our industry is highly competitive and subject to rapid and significant technological change. The large size and expanding scope of the pain market makes it an attractive therapeutic area for biopharmaceutical businesses. Our potential competitors include pharmaceutical, biotechnology and specialty pharmaceutical companies. Several of these companies have robust drug pipelines, readily available capital, and established research and development organizations. We believe our success will be driven by the ability to actively manage a portfolio of assets that remains highly focused on OA patients and their needs.

The key competitive factors affecting the success of all of our product candidates, if approved, are likely to be their efficacy, durability, safety, price and the availability of reimbursement from government and other third-party payors. We believe we will compete favorably by having:

- best-in-class product candidates that have validated mechanisms of action for pain relief;
- sustained-release technology that enable our therapies to maintain persistent therapeutic concentrations in the joint and provide durable efficacy; and
- product candidates with attractive safety profiles with limited systemic exposures and the potential for fewer side effects.

# FX006 Competition

Immediate-release steroids and HA are currently the two marketed classes of IA products that would compete with FX006. Immediate-release steroids are generic and widely used as a first line therapy, but leave the joint rapidly after injection and have efficacy that typically wanes within several weeks. FX006 has demonstrated that it persists in the joint at therapeutic concentrations for at least six weeks following injection, whereas there is no measurable immediate-release TCA in the joint by that time. FX006 also provides prolonged analgesia significantly better than that seen with immediate-release TCA. In addition to immediate-release steroids, FX006 will compete with HA in patients considering something beyond an immediate-release steroid injection. HA therapy, which has demonstrated only marginal pain relief over placebo in knee OA patients, generated U.S. sales of approximately \$700 million in 2013. The magnitude of pain relief demonstrated by FX006 to date is much greater than that seen in historic HA clinical trials. Also on the market are platelet rich plasma injections but these require on site preparation from blood drawn from the patient, have generated questionable efficacy in controlled clinical trials and are unlikely to be a broadly embraced therapeutic option for OA patients. Because platelet rich plasma is a therapy derived from the individual patient's blood, it does not require and has not received FDA review or approval.

In addition to marketed IA medications for OA, other companies have OA product candidates in advanced stages of clinical development. These IA products include Fidia Farmaceutici S.p.A's Hymovis, a physical hydrogel based on HA with properties that appear to be similar to most approved HA products, Anika Therapeutics Inc.'s Cingal<sup>®</sup>, and Ampio Pharmaceuticals, Inc.'s Ampion. Cingal<sup>®</sup> is a simple mixture of Anika's Monovisc and a commonly used immediate-release steroid for which Anika has filed a Pre-Market Application (PMA) with the FDA based on a single pivotal clinical trial. Ampion is a derivative of human serum albumin, is described as having anti-inflammatory properties, and is formulated for immediate-release. It is currently in Phase 3 clinical trials and the 3 month data suggest it has an HA-like efficacy profile. We believe that other programs, such as Orthotrophix's TPX-100, Carbylan BioSurgery, Inc.'s Hydros-TA, Merck Serono's FGF-18 and Allergan, Inc.'s botulinum toxin, have not yet entered Phase 3 clinical trials. Autologous cartilage transplantation products, like Carticel, are appropriate for focal defects in cartilage, not the kind of diffuse disease that is seen with OA. Eupraxia's EP-104 is a pre-clinical/Phase 1 therapy that combines an unapproved carrier technology (Plexis) with a steroid (fluticasone) that is not commonly used for the treatment of knee OA. Stem cell approaches to OA are being explored, but these are earlier in development, bear significant technical risks and it remains to be seen how applicable they will be to the treatment of OA.

Finally, there are many new oral therapies in development for OA pain, but we believe these therapies are likely to expose patients to systemic safety risks greater than that of FX006.

# FX007 Competition

Numerous post-operative pain treatments exist, including local administration with combinations of existing analgesic and anti-inflammatory drugs at the time of surgical wound closure, opioids, intravenous acetaminophen, NSAIDs, epidural nerve blocks and regional nerve blocks. However, these all have limitations in terms of inadequate magnitude and duration of pain relief, serious side effects or functional impairment. Pacira Pharmaceuticals has more recently launched EXPAREL<sup>®</sup>, a product that combines bupivacaine with the DepoFoam<sup>®</sup> drug delivery platform to provide up to 24 hours of postsurgical pain control following a single intraoperative administration.

#### FX005 Competition

FX005 would compete mainly against oral opioids, as patients require very strong analgesic therapy for endstage OA pain. Opioids have numerous systemic side effects, including addiction and constipation, and also cause a higher incidence of falls and fractures in an older OA patient population. Competitors for FX005 include new formulations of existing opioids, including Janssen Pharmaceuticals, Inc.'s Nucynta ER, Johnson & Johnson's OROS, and Purdue Pharma LP's Hysingla ER. For patients with end-stage disease, monoclonal anti-NGF antibodies have the potential to offer powerful pain relief, but in controlled clinical trials these agents were associated with accelerated progression to joint replacement. At the present time, we are not aware of any ongoing trials of monoclonal anti-NGF antibodies in OA.

# Intellectual Property/Patents and Proprietary Rights

# Intellectual Property and Exclusivity

We seek to protect our product candidates and our technology through a combination of patents, trade secrets, proprietary know-how, FDA exclusivity and contractual restrictions on disclosure.

### **Patents and Patent Applications**

Our policy is to seek to protect the proprietary position of our product candidates by, among other methods, filing U.S. and foreign patent applications related to our proprietary technology, inventions and improvements that are important to the development of our business. U.S. patents generally have a term of 20 years from the earliest effective date of the application.

As of December 31, 2014, we exclusively license (i) one U.S. patent and its foreign counterparts directed to FX007 and (ii) one U.S. patent, one U.S. patent application and their foreign counterparts directed to FX005. In addition, we own one U.S. patent, two pending U.S. applications, and counterpart foreign patent applications, along with one pending international application and one pending U.S. provisional patent application, all directed to our FX006 product candidate. Our issued U.S. patent directed to FX006 relates to its composition of matter and has an expiration date in 2031. The FX006 composition of matter patent is the result of several unique discoveries relating to a narrow drug load specification, a certain release profile of polymers, specific polymer weights and ratios and clinical efficacy observed within a dose-range. Further, for our FX006 product candidate, we have foreign patent applications pending in Australia, Canada, Europe, Japan, China and other foreign countries. Our two related pending U.S non-provisional applications could result in additional claims expiring in 2031 and an additional pending international application, if pursued as a non-provisional international application would have an expiration in 2034. One pending provisional application directed to our FX006 product candidate could, if pursued as a non-provisional patent application, result in a patent expiring in 2035.

For our FX007 product candidate, there is one issued U.S. patent covering the TrkA antagonist compound, FX007, which is owned by AstraZeneca and to which we have an exclusive license. This patent is scheduled to expire in 2028. We have also licensed counterpart foreign patents that have been granted in over 50 countries, which include Australia, Canada, and other countries such as Chile and the Philippines. These patents in Australia, Canada and multiple European countries are scheduled to expire in 2026. We have licensed counterpart patent applications that are pending in Brazil, Ecuador, Egypt, India, Norway, Pakistan, Uruguay, Venezuela, Argentina, Indonesia, and Thailand.

For our FX005 product candidate, there is one issued U.S. patent covering the p38 compound, FX005, which is owned by AstraZeneca and to which we have an exclusive license. This patent is scheduled to expire in 2028. We have also licensed counterpart foreign patents that have been granted in over 50 countries, which include Australia, Canada, and other countries. The patents in Australia, Canada and multiple European countries are scheduled to expire in 2024. We have also licensed counterpart patent applications that are pending in Argentina, Brazil, Egypt, Indonesia, Norway, Uruguay, Thailand, and Venezuela. In addition, we have licensed a patent application for the novel formulation of FX005—a patent, if issued based on this application, would be expected to expire in 2029. Foreign equivalents of this patent have been granted in multiple European countries and more recently in Mexico and South Africa, and have been allowed in Israel and Russia and are pending in several other countries.

We have other patent applications on formulations or uses of compounds that are not relevant to our current programs in development.

# Trade Secrets and Proprietary Information

The FX005 and FX006 microsphere PLGA formulations have gone through numerous iterations and have been optimized to deliver the drug substance with a controlled diffusion of drug over an extended period of time. In developing this unique combination of manufacturing process and formulation, we have established numerous trade secrets, including those that relate to a precise pharmaceutical release profile. In addition, due to the complexity of the sustained-release technology and the time, costs and technical risks involved in demonstrating bioequivalence through clinical trials, we believe that the ability of manufacturers to gain market approval for generic alternatives to our products upon expiration of our patents and FDA exclusivity will be challenging.

We seek to protect our proprietary information, including our trade secrets and proprietary know-how, by requiring our employees to execute Proprietary Information, Inventions, Non-Solicitation, and Non-Competition Agreements upon the commencement of their employment. Consultants and other advisors are required to sign consulting agreements. These agreements generally provide that all confidential information developed or made known during the course of the relationship with us be kept confidential and not be disclosed to third parties

except in specific circumstances. In the case of our employees, the agreements also typically provide that all inventions resulting from work performed for us, utilizing our property or relating to our business and conceived or completed during employment shall be our exclusive property to the extent permitted by law. Further, we require confidentiality agreements from entities that receive our confidential data or materials.

# **License** Agreements

AstraZeneca—FX007. On September 3, 2010, we entered into an exclusive license agreement with AstraZeneca for FX007, which was subsequently amended on March 17, 2014. The agreement grants us an exclusive, royalty-bearing, world-wide right and license (with a right to sublicense, subject to certain conditions described below) under AstraZeneca's patent rights and certain know-how covering FX007. We paid AstraZeneca a non-refundable fee following execution of the agreement and will owe up to an aggregate of \$21 million upon the achievement of certain regulatory and development milestones for a first licensed product for OA indications or up to an aggregate of \$15 million upon the achievement of certain regulatory and development milestones for a first licensed product for non-OA indications. Upon commercialization of a product that results from the technology licensed under the agreement, we will owe AstraZeneca tiered royalty payments on net sales based on a percentage ranging from low single digits to low double digits, depending on the volume of sales of the applicable product, as well as up to \$75 million in additional payments based on the achievement of certain sales milestones. Our obligation to pay royalties to AstraZeneca will continue on a country-by-country basis until the later to occur of 12 years following the first commercial sale of the applicable product in the applicable country, or the date that the product is no longer covered by AstraZeneca's patent rights or any applicable data or marketing exclusivity periods in such country.

Under the terms of the agreement, we may not grant sublicenses except in the territory of Japan prior to the achievement of a specified development milestone. In addition, the agreement provides that in the event we desire to offer rights to FX007 to a third party prior to the achievement of a specified development milestone, we must make certain diligence materials available to AstraZeneca, and AstraZeneca will have the right to make an offer to re-acquire rights to FX007. In such circumstances, we are not required to accept AstraZeneca's offer, but we may not enter into an agreement with a third party containing financial terms and conditions that on the whole are more favorable to the third party than the terms and conditions last offered by AstraZeneca.

Unless earlier terminated, the agreement will continue in effect for as long as we are obligated to pay royalties to AstraZeneca, after which the licenses granted to us will survive and become royalty-free, perpetual and irrevocable. AstraZeneca has the right to terminate the agreement if we fail to use commercially reasonable efforts to develop, commercialize and sell licensed products in major markets (subject to a good-faith negotiation and cure period) or if we or any of our affiliates or sublicensees institute, prosecute or otherwise participate in any proceeding challenging the AstraZeneca patent rights that are licensed under the agreement. AstraZeneca also has a right to terminate the agreement in the event of a change of control of us prior to the achievement of a specified development milestone, unless we pay a fee to AstraZeneca (which can be offset against future milestone payments), in which case this termination right will be forfeited. We have the right to terminate the agreement in its entirety, or on a country-by-country basis, for any reason upon three months' prior written notice to AstraZeneca. In addition, either party may terminate the agreement in the event of the other party's uncured material breach of the agreement, or in the event of the other party's bankruptcy or insolvency.

AstraZeneca—FX005. On June 12, 2009, we entered into an exclusive license agreement with AstraZeneca for FX005. The agreement grants us an exclusive, royalty-bearing, world-wide right and license (with a right to sublicense) under AstraZeneca's patent rights and certain know-how covering FX005. We paid AstraZeneca a non-refundable fee upon execution of the agreement and will owe up to an aggregate of \$17 million upon the achievement of certain regulatory and development milestones for a first licensed product for OA indications or up to an aggregate of \$11 million upon the achievement of certain regulatory and development of certain regulatory and development for a first licensed product for non-OA indications. Upon commercialization of a product that results from the technology licensed under the agreement, we will owe AstraZeneca tiered royalty payments on net sales based on

a percentage ranging from low to high single digits, depending on the volume of sales of the applicable product, as well as up to \$45 million in additional payments based on the achievement of certain sales milestones. Our obligation to pay royalties to AstraZeneca will continue on a country-by-country basis until the later to occur of 12 years following the first commercial sale of the applicable product in the applicable country, or the date that the product is no longer covered by AstraZeneca's patent rights or any applicable data or marketing exclusivity periods in such country.

The agreement provides that in the event we desire to offer rights to FX005 to a third party prior to the achievement of a specified development milestone, we must make certain diligence materials available to AstraZeneca and AstraZeneca will have the right to make an offer to re-acquire rights to FX005. However, pursuant to a separate letter agreement entered into between the parties on December 3, 2012, AstraZeneca agreed to waive this right for a specified period.

Unless earlier terminated, the agreement will continue in effect for as long as we are obligated to pay royalties to AstraZeneca, after which the licenses granted to us will survive and become royalty-free, perpetual and irrevocable. AstraZeneca has the right to terminate the agreement if we fail to use commercially reasonable efforts to develop, commercialize and sell licensed products in major markets (subject to a good-faith negotiation and cure period) or if we or any of our affiliates or sublicensees institute, prosecute or otherwise participate in any proceeding challenging the AstraZeneca patent rights that are licensed under the agreement. We have the right to terminate the agreement in its entirety, or on a country-by-country basis, for any reason upon three months' prior written notice to AstraZeneca. In addition, either party may terminate the agreement in the event of the other party's bankruptcy or insolvency. AstraZeneca initially had a right to terminate the agreement in the event of a change of control of us prior to the achievement of a specified development milestone for FX005. However, AstraZeneca agreed to waive this right pursuant to the separate letter agreement described above. Pursuant to the same letter agreement, we are now free to assign our rights under the agreement to our affiliates or to a third party in connection with a change of control.

*Southwest Research Institute Manufacturing*<sup>®</sup> (*SwRI*<sup>®</sup>) *License.* In July 2014, Flexion executed an exclusive worldwide licensing agreement with SwRI<sup>®</sup> to utilize proprietary microsphere manufacturing technologies for production of Flexion's sustained-release drug candidates, including lead candidate FX006. The SwRI<sup>®</sup> technologies employ a uniquely controlled and continuous atomizing technology that will facilitate scale-up of Phase 3 clinical trial material and commercial supply. This exclusive agreement provides for an expanded field of use in a variety of musculoskeletal disorders, as well as broader polymer and steroid ranges, which offers the flexibility to potentially explore different doses, disease indications, and drug-PLGA combinations. Flexion made an up-front payment upon execution of this license and will pay an additional milestone payment upon FDA approval of FX006 for knee OA. The license is non-royalty bearing and remains in effect through patent term expiry.

#### **Government Regulation and Product Approval**

Government authorities in the United States at the federal, state and local level, and in other countries extensively regulate, among other things, the research, development, testing, manufacture, quality control, approval, labeling, packaging, storage, record-keeping, promotion, advertising, distribution, post-approval monitoring and reporting, marketing and export and import of products such as those we are developing. FX006 and any other drug candidate that we develop must be approved by the FDA before they may be legally marketed in the United States and by the corresponding foreign regulatory agencies before they may be legally marketed in foreign countries.

#### U.S. Drug Development Process

In the United States, the FDA regulates drugs under the FDCA and implementing regulations. Drugs are also subject to other federal, state and local statutes and regulations. The process of obtaining regulatory approvals and the subsequent compliance with appropriate federal, state, local and foreign statutes and regulations requires the expenditure of substantial time and financial resources. Failure to comply with the applicable requirements at any time during the product development process, approval process or after approval, may subject an applicant to a variety of administrative or judicial sanctions, such as the FDA's refusal to approve pending applications, withdrawal of an approval, imposition of a clinical hold, issuance of warning letters, product recalls, product seizures, total or partial suspension of production or distribution injunctions, fines, refusals of government contracts, restitution, disgorgement of profits or civil or criminal penalties. Any agency or judicial enforcement action could have a material adverse effect on us. The process required by the FDA before a drug may be marketed in the United States generally involves the following:

- completion of preclinical laboratory tests, animal studies and formulation studies according to Good Laboratory Practices, or GLP, or other applicable regulations;
- submission to the FDA of an investigational new drug, or IND, application, which must become effective before human clinical trials may begin;
- approval by an independent institutional review board, or IRB, at each clinical site before each trial may be initiated;
- performance of adequate and well-controlled human clinical trials according to the FDA's laws and regulations pertaining to the conduct of human clinical studies, collectively referred to as Good Clinical Practices, or GCP, and according to the International Conference of Harmonization, or ICH, GCP guidelines, to establish the safety and efficacy of the proposed drug for its intended use;
- submission to the FDA of an NDA for a proposed new drug;
- satisfactory completion of an FDA inspection of the manufacturing facility or facilities where the drug is produced to assess compliance with the FDA's cGMP requirements, to assure that the facilities, methods and controls are adequate to preserve the drug's identity, strength, quality and purity;
- potential FDA audit of the non-clinical and clinical trial sites that generated the data in support of the NDA; and
- FDA review and approval of the NDA prior to any commercial marketing, sale or shipment of the drug.

The lengthy process of seeking required approvals and the continuing need for compliance with applicable statutes and regulations require the expenditure of substantial resources and approvals are inherently uncertain.

Before testing any compounds with potential therapeutic value in humans, the drug candidate enters the non-clinical testing stage, also referred to as preclinical testing. Preclinical tests include laboratory evaluations of product chemistry, toxicity and formulation, as well as animal studies to assess the potential safety and activity of the drug candidate. The conduct of the preclinical tests must comply with federal regulations and requirements including GLP. The IND sponsor must submit the results of the preclinical tests, together with manufacturing information, analytical data, any available clinical data or literature and a proposed clinical protocol, among other things, to the FDA as part of the IND. The IND automatically becomes effective 30 days after receipt by the FDA, unless before that time the FDA raises concerns or questions related to one or more proposed clinical trials and places the trial on a clinical hold within that 30-day time period. In such a case, the IND sponsor and the FDA must resolve any outstanding concerns before the clinical trials due to safety concerns or non-compliance. Accordingly, we cannot be sure that submission of an IND will result in the FDA allowing clinical trials to begin, or that, once begun, issues will not arise that suspend or terminate such trial.

Clinical trials involve the administration of the drug candidate to healthy subjects or patients with the target disease under the supervision of qualified investigators, generally physicians not employed by or under the trial sponsor's control. Clinical trials are conducted under written study protocols detailing, among other things, the objectives of the clinical trial, dosing procedures, subject selection and exclusion criteria, and the parameters to be used to monitor subject safety. Each protocol must be submitted to the FDA as part of the IND. Clinical trials must be conducted in accordance with the FDA's regulations which reflect the ICH GCP requirements. Further, each clinical trial must be reviewed and approved by an IRB at or servicing each institution at which the clinical trial will be conducted. An IRB is charged with protecting the welfare and rights of trial participants and considers such items as whether the risks to individuals participating in the clinical trials are minimized and are reasonable in relation to anticipated benefits. The IRB also approves the informed consent form that must be provided to each clinical trial subject or his or her legal representative and must monitor the clinical trial until it is completed.

During the development of a new drug, sponsors are given opportunities to meet with the FDA at certain points. These points may be prior to submission of an IND, at the end of Phase 2, and before an NDA is submitted. Meetings at other times may be requested. These meetings can provide an opportunity for the sponsor to share information about the data gathered to date, for the FDA to provide advice, and for the sponsor and FDA to reach agreement on the next phase of development. Sponsors typically use the end of Phase 2 meeting to discuss their Phase 2 clinical results and present their plans for the pivotal Phase 3 clinical trials that they believe will support approval of the new drug.

Human clinical trials are typically conducted in three sequential phases that may overlap or be combined:

- *Phase 1.* The drug is initially introduced into healthy human subjects and tested for safety, dosage tolerance, absorption, metabolism, distribution and excretion. In the case of some products for severe or life-threatening diseases, especially when the product may be too inherently toxic to ethically administer to healthy volunteers, the initial human testing is often conducted only in patients having the specific disease.
- *Phase 2.* The drug is evaluated in a limited patient population to identify possible adverse effects and safety risks, to preliminarily evaluate the efficacy of the product for specific targeted diseases and to determine dosage tolerance, optimal dosage and dosing schedule for patients having the specific disease.
- *Phase 3.* The drug is administered to an expanded patient population in adequate and well-controlled clinical trials to generate sufficient data to statistically confirm the efficacy and safety of the product for approval, to establish the overall risk-benefit profile of the product, and to provide adequate information for the labeling of the product. Generally, at least two adequate and well-controlled Phase 3 clinical trials are required by the FDA for approval of an NDA. In some cases, the FDA has approved a drug based on the results of a single adequate and well-controlled Phase 3 study of excellent design and which provided highly reliable and statistically strong evidence of important clinical benefit, such as an effect on survival, and a confirmatory study would have been difficult to conduct on ethical grounds.

Post-approval studies, also referred to as Phase 4 clinical trials, may be conducted after initial marketing approval. These studies are used to gain additional experience from the treatment of patients in the intended therapeutic indication and may be required by the FDA as part of the approval process.

Progress reports detailing the status of drug development and results of the clinical trials must be submitted at least annually to the FDA and written IND safety reports must be submitted to the FDA and the investigators for serious and unexpected adverse events or any finding from tests in laboratory animals that suggests a significant risk for human subjects or patients. Phase 1, Phase 2 and Phase 3 clinical trials may not be completed successfully within any specified period, if at all. The FDA or the sponsor or its data safety monitoring board

may suspend a clinical trial at any time on various grounds, including a finding that the research subjects are being exposed to an unacceptable health risk. Similarly, an IRB can suspend or terminate approval of a clinical trial at its institution if the clinical trial is not being conducted in accordance with the IRB's requirements or if the drug has been associated with unexpected serious harm to study subjects.

Concurrent with clinical trials, companies usually complete additional animal studies and must also develop additional information about the chemistry and physical characteristics of the drug as well as finalize a process for manufacturing the product in commercial quantities in accordance with cGMP requirements. The manufacturing process must be capable of consistently producing quality batches of the drug candidate and, among other things, the manufacturer must develop methods for testing the identity, strength, quality and purity of the final drug product. Additionally, appropriate packaging must be selected and tested and stability studies must be conducted to demonstrate that the drug candidate does not undergo unacceptable deterioration over its shelf life.

# FDA Review and Approval Processes

The results of product development, preclinical studies and clinical trials for the claimed indications in all relevant pediatric subpopulations and the support for dosing and administration for each pediatric subpopulation for which the product is safe and effective, are contained in an NDA. The FDA may grant deferrals for submission of pediatric data or full or partial waivers after the initial submission of a pediatric study plan following an end of Phase 2 meeting unless otherwise agreed upon by the FDA and the sponsor. In addition, descriptions of the manufacturing process and controls, analytical tests conducted on the chemistry of the drug, proposed labeling and other relevant information are also submitted to the FDA as part of an NDA requesting approval to market the product. The submission of an NDA is subject to the payment of substantial user fees; a waiver of such fees may be obtained under certain limited circumstances.

The FDA reviews all NDAs submitted before it accepts them for filing and may request additional information rather than accepting an NDA for filing. Once the submission is accepted for filing, the FDA begins an in-depth review of the NDA. Under the goals and policies agreed to by the FDA under the Prescription Drug User Fee Act, or PDUFA, the FDA has 12 months after submission of an NDA in which to complete its initial review of a standard NDA and respond to the applicant, and eight months for a priority review NDA. The FDA does not always meet its PDUFA goal dates for review of standard and priority review NDAs. The review process and the PDUFA goal date may be extended by additional three month review periods whenever the FDA requests or the NDA sponsor otherwise provides additional information or clarification regarding information already provided in the submission at any time during the review cycle.

The FDA reviews the NDA to determine, among other things, whether the proposed product is safe and effective for its intended use, and whether the product is being manufactured in accordance with cGMP to assure and preserve the product's identity, strength, quality and purity. The FDA may refer applications for novel drug products or drug products which present difficult questions of safety or efficacy to an advisory committee, typically a panel that includes clinicians and other experts, for review, evaluation and a recommendation as to whether the application should be approved and under what conditions. The FDA is not bound by the recommendations of an advisory committee, but it considers such recommendations carefully when making decisions. During the drug approval process, the FDA also will determine whether a risk evaluation and mitigation strategy, or REMS, is necessary to assure the safe use of the drug. If the FDA concludes a REMS is needed, the sponsor of the NDA must submit a proposed REMS; the FDA will not approve the NDA without a REMS, if required.

Before approving an NDA, the FDA will typically inspect the facilities at which the product is to be manufactured. When an inspection is undertaken, the FDA will not approve the product unless it determines that the manufacturing processes and facilities are in compliance with cGMP requirements and adequate to assure consistent production of the product within required specifications. Additionally, before approving an NDA, the

FDA will typically inspect one or more clinical sites to assure compliance with FDA regulations regarding conduct of clinical trials for the product's trials. If the FDA determines that the application, manufacturing process or manufacturing facilities are not acceptable, it will outline the deficiencies in the submission and often will request additional testing or information.

The NDA review and approval process is lengthy and difficult and the FDA may refuse to approve an NDA if the applicable regulatory criteria are not satisfied or may require additional clinical data or other data and information. Even if such data and information is submitted, the FDA may ultimately decide that the NDA does not satisfy the criteria for approval. Data obtained from clinical trials are not always conclusive and the FDA may interpret data differently than we interpret the same data, which could delay, limit or prevent regulatory approval. The FDA will issue a "complete response" letter if the agency decides not to approve the NDA. The complete response letter usually describes all of the specific deficiencies in the NDA identified by the FDA. The deficiencies identified may be minor, for example, requiring labeling changes, or major, for example, requiring additional clinical trials. Additionally, the complete response letter may include recommended actions that the applicant might take to place the application in a condition for approval. If a complete response letter is issued, the applicant may either resubmit the NDA, addressing all of the deficiencies identified in the letter, or withdraw the application.

If a product receives regulatory approval, the approval may be significantly limited to specific diseases and dosages or the indications for use may otherwise be limited, which could restrict the commercial value of the product. Further, the FDA may require that certain contraindications, warnings or precautions be included in the product labeling. In addition, the FDA may require post approval studies, referred to as Phase 4 testing, which involves clinical trials designed to further assess a product's safety and effectiveness and may require testing and surveillance programs to monitor the safety of approved products that have been commercialized.

## **Post-Approval Requirements**

Any drug products for which we receive FDA approvals are subject to continuing regulation by the FDA, including, among other things, record-keeping requirements, reporting of adverse experiences with the product, providing the FDA with updated safety and efficacy information, product sampling and distribution requirements, complying with certain electronic records and signature requirements and complying with FDA promotion and advertising requirements. These promotion and advertising requirements include, among other things, standards for direct-to-consumer advertising, prohibitions against promoting drugs for uses or in patient populations that are not described in the drug's approved labeling (known as "off-label use"), rules for conducting industry-sponsored scientific and educational activities, and promotional activities involving the internet. Failure to comply with FDA requirements can have negative consequences, including adverse publicity, enforcement letters from the FDA, mandated corrective advertising or communications with doctors, and civil or criminal penalties. Although physicians may prescribe legally available drugs for off-label uses, manufacturers may not market or promote such off-label uses.

We rely, and expect to continue to rely, on third parties for the production of clinical and commercial quantities of our products. Manufacturers of our products are required to comply with applicable FDA manufacturing requirements contained in the FDA's cGMP regulations. cGMP regulations require, among other things, quality control and quality assurance as well as the corresponding maintenance of records and documentation. Drug manufacturers and other entities involved in the manufacture and distribution of approved drugs are also required to register their establishments with the FDA and certain state agencies, and are subject to periodic unannounced inspections by the FDA and certain state agencies for compliance with cGMP and other laws. Accordingly, manufacturers must continue to expend time, money, and effort in the area of production and quality control to maintain cGMP compliance. Discovery of problems with a product after approval may result in restrictions on a product, manufacturer, or holder of an approved NDA. These restrictions may include suspension of a product until the FDA is assured that quality standards can be met, continuing oversight of manufacturing by the FDA under a consent decree of permanent injunction, which frequently includes the

imposition of costs and continuing inspections over a period of many years, as well as possible withdrawal of the product from the market. In addition, changes to the manufacturing process generally require prior FDA approval before being implemented. Other types of changes to the approved product, such as adding new indications and additional labeling claims, are also subject to further FDA review and approval.

# Pharmaceutical Coverage, Pricing and Reimbursement

Significant uncertainty exists as to the coverage and reimbursement status of any drug candidates for which we obtain regulatory approval. In the United States and markets in other countries, sales of any products for which we receive regulatory approval for commercial sale will depend in part on the availability of coverage and adequate reimbursement from third-party payors. Third-party payors include government payor programs at the federal and state levels, including Medicare and Medicaid, managed care providers, private health insurers and other organizations. The process for determining whether a payor will provide coverage for a drug product may be separate from the process for setting the price or reimbursement rate that the payor will pay for the drug product. Third-party payors may limit coverage to specific drug products on an approved list, or formulary, which might not include all of the FDA-approved drug products for a particular indication. Third-party payors are increasingly challenging the price and examining the medical necessity and cost-effectiveness of medical products and services, in addition to their safety and efficacy. We may need to conduct expensive pharmacoeconomic studies in order to demonstrate the medical necessity and cost-effectiveness of our products, in addition to the costs required to obtain the FDA approvals. Our drug candidates may not be considered medically necessary or cost-effective. A payor's decision to provide coverage for a drug product does not imply that an adequate reimbursement rate will be approved. Adequate third party reimbursement may not be available to enable us to maintain price levels sufficient to realize an appropriate return on our investment in product development.

The cost of pharmaceuticals continues to generate substantial governmental and third-party payor interest. We expect that the pharmaceutical industry will experience pricing pressures due to the trend toward managed healthcare, the increasing influence of managed care organizations and additional legislative proposals. Third-party payors are increasingly challenging the prices charged for medical products and services and examining the medical necessity and cost-effectiveness of medical products and services, in addition to their safety and efficacy. If these third-party payors do not consider our products to be cost-effective compared to other available therapies, they may not cover our products after approval as a benefit under their plans or, if they do, the level of payment may not be sufficient to allow us to sell our products at a profit. The U.S. government, state legislatures and foreign governments have shown significant interest in implementing cost containment programs to limit the growth of government-paid healthcare costs, including price controls, restrictions on reimbursement and requirements for substitution of generic products for branded prescription drugs. Adoption of such controls and measures, and tightening of restrictive policies in jurisdictions with existing controls and measures, could limit payments for pharmaceuticals such as the drug candidates that we are developing and could adversely affect our net revenue and results.

Different pricing and reimbursement schemes exist in other countries. In the European Community, governments influence the price of pharmaceutical products through their pricing and reimbursement rules and control of national healthcare systems that fund a large part of the cost of those products to consumers. Some jurisdictions operate positive and negative list systems under which products may only be marketed once a reimbursement price has been agreed. To obtain reimbursement or pricing approval, some of these countries may require the completion of clinical trials that compare the cost-effectiveness of a particular drug candidate to currently available therapies. Other member states allow companies to fix their own prices for medicines, but monitor and control company profits. The downward pressure on healthcare costs in general, particularly prescription drugs, has become very intense. As a result, increasingly high barriers are being erected to the entry of new products. In addition, in some countries, cross-border imports from low-priced markets exert a commercial pressure on pricing within a country. There can be no assurance that any country that has price controls or reimbursement limitations for drug products will allow favorable reimbursement and pricing arrangements for any of our products.

#### Healthcare Reform

In the United States and foreign jurisdictions, there have been a number of legislative and regulatory changes to the healthcare system that could affect our future results of operations. In particular, there have been and continue to be a number of initiatives at the United States federal and state levels that seek to reduce healthcare costs.

In the United States, the Medicare Prescription Drug, Improvement, and Modernization Act of 2003, or the Medicare Modernization Act, changed the way Medicare covers and pays for pharmaceutical products. The Medicare Modernization Act expanded Medicare coverage for drug purchases by the elderly by establishing Medicare Part D and introduced a new reimbursement methodology based on average sales prices for physician administered drugs under Medicare Part B. In addition, this legislation provided authority for limiting the number of drugs that will be covered in any therapeutic class under the new Medicare Part D program. Cost reduction initiatives and other provisions of this legislation could decrease the coverage and reimbursement rate that we receive for any of our approved products. While the Medicare Modernization Act applies only to drug benefits for Medicare beneficiaries, private payors often follow Medicare coverage policy and payment limitations in setting their own reimbursement rates. Therefore, any reduction in reimbursement that results from the Medicare Modernization Act may result in a similar reduction in payments from private payors.

In March 2010, President Obama signed into law the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Affordability Reconciliation Act, collectively, PPACA, a sweeping law intended to broaden access to health insurance, reduce or constrain the growth of healthcare spending, enhance remedies against fraud and abuse, add new transparency requirements for healthcare and health insurance industries, impose new taxes and fees on the health industry and impose additional health policy reforms. Among other things, PPACA revises the definition of "average manufacturer price" for reporting purposes, which could increase the amount of Medicaid drug rebates to states once the provision is effective. Further, the new law imposes a significant annual fee on companies that manufacture or import branded prescription drug products. Substantial new provisions affecting compliance have also been enacted, which may require us to modify our business practices with healthcare practitioners, and a significant number of provisions are not yet, or have only recently become, effective. Although it is too early to determine the effect of PPACA, the new law appears likely to continue the pressure on pharmaceutical pricing, especially under the Medicare program, and may also increase our regulatory burdens and operating costs.

In addition, other legislative changes have been proposed and adopted since PPACA was enacted. For example, on August 2, 2011, the President signed into law the Budget Control Act of 2011, which, among other things, created the Joint Select Committee on Deficit Reduction to recommend to Congress proposals in spending reductions. The Joint Select Committee on Deficit Reduction did not achieve a targeted deficit reduction of at least \$1.2 trillion for the years 2013 through 2021, triggering the legislation's automatic reduction to several government programs. This includes aggregate reductions to Medicare payments to providers of up to 2% per fiscal year, starting in 2013. On January 2, 2013, President Obama signed into law the American Taxpayer Relief Act of 2012, which, among other things, reduced Medicare payments to several providers and increased the statute of limitations period for the government to recover overpayments to providers from three to five years. These new laws may result in additional reductions in Medicare and other healthcare funding, which could have a material adverse effect on our customers and accordingly, our financial operations.

We expect that PPACA, 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 results of operations. 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 prevent us from being able to generate revenue, attain profitability, or commercialize our products.

# Other U.S. Healthcare Laws and Compliance Requirements

In the United States, our activities are potentially subject to regulation by various federal, state and local authorities in addition to the FDA, including the Centers for Medicare and Medicaid Services, other divisions of the United States Department of Health and Human Services (e.g., the Office of Inspector General), the United States Department of Justice and individual United States Attorney offices within the Department of Justice, and state and local governments. For example, various activities, including but not limited to sales, marketing and scientific/educational grant programs, must comply with the anti-fraud and abuse provisions of the Social Security Act, the federal Anti-Kickback Statute, the federal False Claims Act and similar state laws, each as amended. Failure to comply with such requirements could potentially result in substantial penalties to us. Even if we structure our programs with the intent of compliance with such laws, there can be no certainty that we would not need to defend against enforcement or litigation, in light of the fact that there is significant enforcement interest in pharmaceutical companies in the United States, and some of the applicable laws are quite broad in scope.

The federal Anti-Kickback Statute prohibits any person, including a prescription drug manufacturer (or a party acting on its behalf), from knowingly and willfully soliciting, receiving, offering or providing remuneration, directly or indirectly, to induce or reward either the referral of an individual, or the furnishing, recommending, or arranging for a good or service, for which payment may be made under a federal healthcare program such as the Medicare and Medicaid programs. This statute has been interpreted to apply to arrangements between pharmaceutical manufacturers on one hand and prescribers, purchasers, and formulary managers on the other. The term "remuneration" is not defined in the federal Anti-Kickback Statute and has been broadly interpreted to include anything of value, including for example, gifts, discounts, the furnishing of supplies or equipment, credit arrangements, payments of cash, waivers of payments, ownership interests and providing anything at less than its fair market value. Although there are a number of statutory exemptions and regulatory safe harbors protecting certain business arrangements from prosecution, the exemptions and safe harbors are drawn narrowly and practices that involve remuneration intended to induce prescribing, purchasing or recommending may be subject to scrutiny if they do not qualify for an exemption or safe harbor. Our practices may not in all cases meet all of the criteria for safe harbor protection from federal Anti-Kickback Statute liability. The reach of the Anti-Kickback Statute was broadened by PPACA, which, among other things, amends the intent requirement of the federal Anti-Kickback Statute such that a person or entity no longer needs to have actual knowledge of this statute or specific intent to violate it in order to have committed a violation. In addition, PPACA provides that the government may assert that a claim including items or services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the federal False Claims Act (discussed below) or the civil monetary penalties statute, which imposes fines against any person who is determined to have presented or caused to be presented claims to a federal healthcare program that the person knows or should know is for an item or service that was not provided as claimed or is false or fraudulent. Additionally, many states have adopted laws similar to the federal Anti-Kickback Statute, and some of these state prohibitions apply to referral of patients for healthcare items or services reimbursed by any thirdparty payor, not only the Medicare and Medicaid programs in at least some cases, and do not contain safe harbors.

The federal False Claims Act imposes liability on any person or entity that, among other things, knowingly presents, or causes to be presented, a false or fraudulent claim for payment by a federal healthcare program. The qui tam provisions of the False Claims Act allow a private individual to bring civil actions on behalf of the federal government alleging that the defendant has submitted a false claim to the federal government, and to share in any monetary recovery. In recent years, the number of suits brought by private individuals has increased dramatically. In addition, various states have enacted false claims laws analogous to the False Claims Act. Many of these state laws apply where a claim is submitted to any third party payor and not merely a federal healthcare program. There are many potential bases for liability under the False Claims Act. Liability arises, primarily, when an entity knowingly submits, or causes another to submit, a false claim for reimbursement to the federal government. The False Claims Act has been used to assert liability on the basis of inadequate care, kickbacks and

other improper referrals, improperly reported government pricing metrics such as Best Price or Average Manufacturer Price, improper use of Medicare numbers when detailing the provider of services, improper promotion of off-label uses (i.e., uses not expressly approved by FDA in a drug's label), and allegations as to misrepresentations with respect to the services rendered. Our future activities relating to the reporting of discount and rebate information and other information affecting federal, state and third party reimbursement of our future products, and the sale and marketing of our future products and our service arrangements or data purchases, among other activities, may be subject to scrutiny under these laws. We are unable to predict whether we would be subject to actions under the False Claims Act or a similar state law, or the impact of such actions. However, the cost of defending such claims, as well as any sanctions imposed, could adversely affect our financial performance. Also, the Health Insurance Portability and Accountability Act of 1996, or HIPAA, created several new federal crimes, including healthcare fraud, and false statements relating to healthcare matters. The healthcare fraud statute prohibits knowingly and willfully executing a scheme to defraud any healthcare benefit program, including private third-party payors. The false statements statute prohibits knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false, fictitious or fraudulent statement in connection with the delivery of or payment for healthcare benefits, items or services.

In addition, we may be subject to, or our marketing activities may be limited by, data privacy and security regulation by both the federal government and the states in which we conduct our business. For example, HIPAA and its implementing regulations established uniform federal standards for certain "covered entities" (healthcare providers, health plans and healthcare clearinghouses) governing the conduct of certain electronic healthcare transactions and protecting the security and privacy of protected health information. The American Recovery and Reinvestment Act of 2009, commonly referred to as the economic stimulus package, included expansion of HIPAA's privacy and security standards called the Health Information Technology for Economic and Clinical Health Act, referred to as HITECH, which became effective on February 17, 2010. Among other things, HITECH makes HIPAA's privacy and security standards directly applicable to "business associates" independent contractors or agents of covered entities that create, receive, maintain, or transmit protected health information in connection with providing a service for or on behalf of a covered entity. HITECH also increased the civil and criminal penalties that may be imposed against covered entities, business associates and possibly other persons, and gave state attorneys general new authority to file civil actions for damages or injunctions in federal courts to enforce the federal HIPAA laws and seek attorney's fees and costs associated with pursuing federal civil actions. We may also be subject to various federal and state marketing expenditure tracking and reporting laws, which generally require certain types of expenditures in the United States to be tracked and reported. Compliance with such requirements may require investment in infrastructure to ensure that tracking is performed properly, and some of these laws result in the public disclosure of various types of payments and relationships. Several states have enacted legislation requiring pharmaceutical companies to, among other things, establish marketing compliance programs, file periodic reports with the state, make periodic public disclosures on sales, marketing, pricing, clinical trials and other activities, or register their sales representatives, as well as prohibiting pharmacies and other healthcare entities from providing certain physician prescribing data to pharmaceutical companies for use in sales and marketing, and prohibiting certain other sales and marketing practices. These laws may affect our sales, marketing, and other promotional activities by imposing administrative and compliance burdens on us. If we fail to track and report as required by these laws or otherwise comply with these laws, we could be subject to the penalty provisions of the pertinent state and federal authorities.

Where our activities involve foreign government officials, they may also potentially be subject to the Foreign Corrupt Practices Act. If we seek to have a product covered in the United States by the Medicaid programs, various obligations, including government price reporting, are required under the Medicaid rebate requirements of the Omnibus Budget Reconciliation Act of 1990 and the Veterans Health Care Act of 1992, each as amended, which generally require products to be offered at substantial rebates/discounts to such programs and certain purchasers. In order to distribute products commercially, we must comply with state laws that require the registration of manufacturers and wholesale distributors of pharmaceutical products in a state, including, in certain states, manufacturers and distributors who ship products into the state even if such manufacturers or

distributors have no place of business within the state. Some states also impose requirements on manufacturers and distributors to establish the pedigree of product in the chain of distribution, including some states that require manufacturers and others to adopt new technology capable of tracking and tracing product as it moves through the distribution chain. Many of our current as well as possible future activities are potentially subject to federal and state consumer protection and unfair competition laws. We must also comply with laws that require clinical trial registration and reporting of clinical trial results on the publicly available clinical trial databank maintained by the National Institutes of Health at www.ClinicalTrials.gov. We are subject to various environmental, health and safety regulations, including those governing laboratory procedures and the handling, use, storage, treatment and disposal of hazardous substances. From time to time, and in the future, our operations may involve the use of hazardous materials.

Because of the breadth of these laws and the narrowness of available statutory and regulatory exemptions, it is possible that some of our business activities could be subject to challenge under one or more of such laws. If our operations are found to be in violation of any of the federal and state laws described above or any other governmental regulations that apply to us, we may be subject to penalties, including criminal and significant civil monetary penalties, damages, fines, imprisonment, exclusion from participation in government healthcare programs, injunctions, recall or seizure of products, total or partial suspension of production, denial or withdrawal of pre-marketing product approvals, private "qui tam" actions brought by individual whistleblowers in the name of the government or refusal to allow us to enter into supply contracts, including government contracts, and the curtailment or restructuring of our operations, any of which could adversely affect our ability to operate our business and our results of operations. To the extent that any of our products are sold in a foreign country, we may be subject to similar foreign laws and regulations, which may include, for instance, applicable post-marketing requirements, including safety surveillance, anti-fraud and abuse laws, and implementation of corporate compliance programs and reporting of payments or transfers of value to healthcare professionals.

#### U.S. Marketing Exclusivity

Hatch-Waxman Exclusivity. Market exclusivity provisions under the FDCA can also delay the submission or the approval of certain applications of other companies seeking to reference another company's NDA. If the new drug is a new chemical entity subject to an NDA, the FDCA provides a five-year period of non-patent marketing exclusivity within the United States to the first applicant to obtain approval of an NDA for a new chemical entity. A drug is a new chemical entity if the FDA has not previously approved any other new drug containing the same active moiety, which is the molecule or ion responsible for the action of the drug substance. During the exclusivity period, the FDA may not accept for review an abbreviated new drug application, or ANDA, or a Section 505(b)(2) NDA submitted by another company for another version of such drug where the applicant does not own or have a legal right of reference to all the data required for approval. However, such an application may be submitted after four years if it contains a certification of patent invalidity or non-infringement to one of the patents listed with the FDA by the innovator NDA holder. The FDCA also provides three years of marketing exclusivity for an NDA, or supplement to an existing NDA if new clinical investigations, other than bioavailability studies, that were conducted or sponsored by the applicant are deemed by the FDA to be essential to the approval of the application, for example new indications, dosages or strengths of an existing drug. This three-year exclusivity covers only the conditions associated with the new clinical investigations and does not prohibit the FDA from approving ANDAs for drugs containing the original active agent. Five-year and three-year exclusivity will not delay the submission or approval of a full NDA. However, an applicant submitting a full NDA would be required to conduct or obtain a right of reference to all of the preclinical studies and adequate and well-controlled clinical trials necessary to demonstrate safety and effectiveness.

**Pediatric Exclusivity.** Pediatric exclusivity is another type of regulatory market exclusivity in the United States. Pediatric exclusivity, if granted, adds six months to any existing exclusivity period or patent term. This six-month exclusivity may be granted by the FDA based on the completion of a pediatric clinical trial in accordance with provisions of the FDCA.

#### Europe/Rest of World Government Regulation

In addition to regulations in the United States, we will be subject to a variety of regulations in other jurisdictions governing, among other things, clinical trials and any commercial sales and distribution of our future products.

Whether or not we obtain FDA approval for a product, we must obtain the requisite approvals from regulatory authorities in foreign countries prior to the commencement of clinical trials or marketing of the product in those countries. Certain countries outside of the United States have a similar process that requires the submission of a clinical trial application much like the IND prior to the commencement of human clinical trials. In the European Union, for example, a clinical trial application, or CTA, must be submitted to each country's national health authority and an independent ethics committee, much like the FDA and IRB, respectively. Once the CTA is approved in accordance with a country's requirements, the clinical trial described in that CTA may proceed.

The requirements and process governing the conduct of clinical trials, product licensing, pricing and reimbursement vary from country to country. In all cases, the clinical trials must be conducted in accordance with the ICH GCP and the applicable regulatory requirements and the ethical principles that have their origin in the Declaration of Helsinki. In the European Economic Area, or EEA (which is comprised of the 27 Member States of the European Union plus Norway, Iceland and Liechtenstein), medicinal products can only be commercialized after obtaining a Marketing Authorization, or MA. There are two types of marketing authorizations: the Community MA, which is issued by the European Commission through the Centralized Procedure based on the opinion of the Committee for Medicinal Products for Human Use, a body of the European Medicines Agency, or the EMA, and which is valid throughout the entire territory of the EEA; and the National MA, which is issued by the competent authorities of the Member States of the EEA and only authorized marketing in that Member State's national territory and not the EEA as a whole.

The Centralized Procedure is mandatory for certain types of products, such as biotechnology medicinal products, orphan medicinal products, and medicinal products containing a new active substance indicated for the treatment of AIDS, cancer, neurodegenerative disorders, diabetes, auto-immune and viral diseases. The Centralized Procedure is optional for products containing a new active substance not yet authorized in the EEA, or for products that constitute a significant therapeutic, scientific or technical innovation or which are in the interest of public health in the EU. The National MA is for products not falling within the mandatory scope of the Centralized Procedure. Where a product has already been authorized for marketing in a Member State of the EEA, this National MA can be recognized in another Member States through the Mutual Recognition Procedure. If the product has not received a National MA in any Member State at the time of application, it can be approved simultaneously in various Member States through the Decentralized Procedure. Under the Decentralized Procedure an identical dossier is submitted to the competent authorities of each of the Member States in which the MA is sought, one of which is selected by the applicant as the Reference Member state, or RMS. If the RMS proposes to authorize the product, and the other Member States do not raise objections, the product is granted a national MA in all the Member States where the authorization was sought. Before granting the MA, the EMA or the competent authorities of the Member States of the EEA make an assessment of the risk-benefit balance of the product on the basis of scientific criteria concerning its quality, safety and efficacy.

If we fail to comply with applicable foreign regulatory requirements, we may be subject to, among other things, fines, suspension or withdrawal of regulatory approvals, product recalls, seizure of products, operating restrictions and criminal prosecution.

#### Employees

As of December 31, 2014, we had 29 full-time employees. None of our employees is represented by labor unions or covered by collective bargaining agreements. We consider our relationship with our employees to be good.

#### **Research and Development**

We invested \$17.9 million, \$11.1 million, and \$11.1 million in research and development in the years ended December 31, 2014, 2013 and 2012, respectively.

#### **Corporate and Other Information**

We were incorporated in Delaware in November 2007. Our principal executive offices are located at 10 Mall Road, Suite 301, Burlington, Massachusetts 01803, and our telephone number is (781) 305-7777. Our corporate website address is www.flexiontherapeutics.com. Information contained on or accessible through our website is not a part of this Annual Report, and the inclusion of our website address in this Annual Report is an inactive textual reference only. Our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and amendments to reports filed pursuant to Sections 13(a) and 15(d) of the Exchange Act are available free of charge on our website as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC. We also regularly post copies of our press releases as well as copies of presentations and other updates about our business on our website. The SEC maintains an internet site that contains our public filings with the SEC and other information regarding our company, at www.sec.gov. These reports and other information concerning our company may also be accessed at the SEC's Public Reference Room at 100 F Street, NE, 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.

This Annual Report contains references to our trademarks and to trademarks belonging to other entities. Solely for convenience, trademarks and trade names referred to in this Form 10-K, including logos, artwork and other visual displays, may appear without the <sup>®</sup> or TM symbols, but such references are not intended to indicate, in any way, that their respective owners will not assert, to the fullest extent under applicable law, their rights thereto. We do not intend our use or display of other companies' trade names or trademarks to imply a relationship with, or endorsement or sponsorship of us by, any other companies.

#### Item 1A. Risk Factors

Certain factors may have a material adverse effect on our business, financial condition and results of operations, and you should carefully consider them. Accordingly, in evaluating our business, we encourage you to consider the following discussion of risk factors, in its entirety, in addition to other information contained in this Annual Report as well as our other public filings with the Securities and Exchange Commission.

#### Risks Related to Our Financial Condition and Need for Additional Capital

### We have incurred significant losses since our inception and anticipate that we will continue to incur significant losses for the foreseeable future.

We have limited operating history. To date, we have focused primarily on developing our lead product candidate, FX006. We have two additional product candidates, FX007 and FX005. All of our product candidates will require substantial additional development time and resources before we would be able to apply for or receive regulatory approvals and begin generating revenue from product sales. We have incurred significant net losses in each year since our inception, including net losses of \$27.3 million, \$18.2 million, and \$15.0 million for fiscal years 2014, 2013, and 2012, respectively. As of December 31, 2014, we had an accumulated deficit of \$93.5 million.

We have devoted most of our financial resources to product development, including our non-clinical development activities and clinical trials. To date, we have financed our operations exclusively through the sale of equity securities and debt. The size of our future net losses will depend, in part, on the rate of future expenditures and our ability to generate revenue. To date, none of our product candidates have been commercialized, and if our product candidates are not successfully developed or commercialized, or if revenue is insufficient following marketing approval, we will not achieve profitability and our business may fail. Even if we successfully obtain regulatory approval to market our product candidates in the United States, our revenue is also dependent upon the size of the markets outside of the United States, as well as our ability to obtain market approval and achieve commercial success.

We expect to continue to incur substantial and increased expenses as we expand our development activities and advance our clinical programs, particularly with respect to FX006. We also expect a continued increase in our expenses associated with our operations as a publicly-traded company. As a result of the foregoing, we expect to continue to incur significant and increasing losses and negative cash flows for the foreseeable future.

#### We have never generated any revenue and may never be profitable.

Our ability to generate revenue and achieve profitability depends on our ability, alone or with collaborators, to successfully complete the development of, obtain the necessary regulatory approvals for, and commercialize our product candidates. We do not anticipate generating revenue from sales of our product candidates for the foreseeable future, if ever. Our ability to generate future revenue from product sales depends heavily on our success in:

- completing clinical development of FX006, as well as advancing clinical development of our other product candidates;
- obtaining regulatory approval for FX006 as well as our other product candidates; and
- launching and commercializing any product candidates for which we receive regulatory approval, either by building our own targeted sales force or by collaborating with third parties.

Because of the numerous risks and uncertainties associated with pharmaceutical product development, we are unable to predict the timing or amount of increased expenses, when, or if, we will begin to generate revenue from product sales, or when, or if, we will be able to achieve or maintain profitability. In addition, our expenses could increase beyond expectations if we are required by the FDA to perform studies in addition to those that we currently anticipate.

Even if one or more of our product candidates is approved for commercial sale, to the extent we do not engage a third party collaborator, we anticipate incurring significant costs associated with commercializing any approved product candidate. Even if we are able to generate revenue from the sale of any approved products, we may not become profitable and may need to obtain additional funding to continue operations.

### If we fail to obtain additional financing, we would be forced to delay, reduce or eliminate our product development programs.

Developing pharmaceutical products, including conducting preclinical studies and clinical trials, is expensive. We expect our development expenses to substantially increase in connection with our ongoing activities, particularly as we advance our clinical programs, including our on-going and planned clinical trials for FX006.

As of December 31, 2014, we had cash, cash equivalents and marketable securities of \$151.6 million and working capital of \$145.3 million. Based upon our current operating plan, we believe that our existing cash, cash equivalents and marketable securities will enable us to fund our operating expenses and capital requirements at least into mid-2017, including through completion of our pivotal Phase 2b and Phase 3 clinical trials for FX006 and the submission of an NDA for FX006. Regardless of our expectations as to how long our cash, cash equivalents and marketable securities will fund our operations, changing circumstances beyond our control may cause us to consume capital more rapidly than we currently anticipate. For example, our clinical trials may encounter technical, enrollment or other difficulties that could increase our development costs more than we expect or the FDA could impose additional or different clinical development requirements on us prior to our submission of an NDA for FX006. In any event, we may require additional capital prior to commercializing FX006 or any of our other product candidates.

Attempting to secure additional financing may divert our management from our day-to-day activities, which may adversely affect our ability to develop and commercialize our product candidates. In addition, we cannot guarantee that future financing will be available in sufficient amounts or on terms acceptable to us, if at all. If we are unable to raise additional capital when required or on acceptable terms, we may be required to:

- significantly delay, scale back or discontinue the development or commercialization of our product candidates;
- seek corporate partners for our product candidates at an earlier stage than otherwise would be desirable or on terms that are less favorable than might otherwise be available;
- relinquish or license on unfavorable terms, our rights to technologies or product candidates that we
  otherwise would seek to develop or commercialize ourselves; or
- significantly curtail, or cease, operations.

If we are unable to raise additional capital in sufficient amounts or on terms acceptable to us, we will be prevented from pursuing development and commercialization efforts, which will have a material adverse effect on our business, operating results and prospects.

### We may sell additional equity or debt securities to fund our operations, which may result in dilution to our stockholders and impose restrictions on our business.

In order to raise additional funds to support our operations, we may sell additional equity or debt securities, which could adversely impact our existing stockholders as well as our business. The sale of additional equity or convertible debt securities would result in the issuance of additional shares of our capital stock and dilution to all of our stockholders. The incurrence of indebtedness would result in increased fixed payment obligations and could also result in certain restrictive covenants, such as limitations on our ability to incur additional debt, limitations on our ability to acquire, sell or license intellectual property rights and other operating restrictions that could adversely impact our ability to conduct our business.

Our credit and security agreement with MidCap Financial SBIC, LP, or MidCap, contains restrictions that limit our flexibility in operating our business. We may be required to make a prepayment or repay the outstanding indebtedness earlier than we expect under our credit and security agreement if a prepayment event or an event of default occurs, including a material adverse change with respect to us, which could have a materially adverse effect on our business.

In January 2013, we entered into a credit and security agreement with MidCap and drew down the full \$5.0 million under the facility. The agreement contains various covenants that limit our ability to engage in specified types of transactions. These covenants limit our ability to, among other things:

- incur or assume certain debt;
- merge or consolidate or acquire all or substantially all of the capital stock or property of another entity;
- enter into any transaction or series of related transactions that would be deemed to result in a change in control of us under the terms of the agreement;
- change the nature of our business;
- change our organizational structure or type;
- amend, modify or waive any of our organizational documents;
- license, transfer or dispose of certain assets;
- grant certain types of liens on our assets;
- make certain investments;
- pay cash dividends;
- · enter into material transactions with affiliates; and
- amend or waive provisions of material agreements in certain manners.

The restrictive covenants of the agreement could cause us to be unable to pursue business opportunities that we or our stockholders may consider beneficial.

A breach of any of these covenants could result in an event of default under the agreement. An event of default will also occur if, among other things, a material adverse change in our business, operations or condition occurs, which could potentially include negative results in our planned clinical trials, or a material impairment of the prospect of our repayment of any portion of the amounts we owe under the agreement occurs. In the case of a continuing event of default under the agreement, MidCap could elect to declare all amounts outstanding to be immediately due and payable, proceed against the collateral in which we granted MidCap a security interest under the agreement, or otherwise exercise the rights of a secured creditor. Amounts outstanding under the agreement are secured by all of our existing and future assets, excluding intellectual property, which is subject to a negative pledge arrangement.

We may not have enough available cash or be able to raise additional funds on satisfactory terms, if at all, through equity or debt financings to repay our indebtedness at the time any such repayment is required. In such an event, we may be required to delay, limit, reduce or terminate our product development or commercialization efforts or grant to others rights to develop and market product candidates that we would otherwise prefer to develop and market ourselves. Our business, financial condition and results of operations could be materially adversely affected as a result.

#### **Risks Related to Clinical Development and Regulatory Approval**

We are heavily dependent on the success of our lead product candidate FX006, which is in a later stage of development than our other product candidates. We cannot give any assurance that FX006 will successfully complete clinical development or receive regulatory approval, which is necessary before it can be commercialized.

Our business and future success is substantially dependent on our ability to successfully develop, obtain regulatory approval for, and successfully commercialize our lead product candidate FX006, for which we are conducting pivotal Phase 2b and Phase 3 clinical trials. Any delay or setback in the development of any of our product candidates, but particularly FX006, could adversely affect our business and cause our stock price to decline. Should our planned FX006 clinical development fail to be completed in a timely manner or at all, we may rely on our other product candidates, FX007 and FX005, which are at an earlier development stage and will require additional time and resources to obtain regulatory approval and proceed with commercialization. We cannot assure you that our planned clinical development for FX006 will be completed in a timely manner, or at all, or that we will be able to obtain approval for FX006 from the FDA or any foreign regulatory authority.

# Clinical development is a lengthy and expensive process with an uncertain outcome, and results of earlier studies and trials may not be predictive of future trial results. Clinical failure can occur at any stage of clinical development. We have never completed a pivotal clinical trial or submitted an NDA.

Clinical testing is expensive and can take many years to complete, and its outcome is inherently uncertain. Failure can occur at any time during the clinical trial process. The results of preclinical studies and early clinical trials of our product candidates may not be predictive of the results of subsequent clinical trials. In particular, the positive results generated in the completed FX006 Phase 2b dose-ranging clinical trial do not ensure that our ongoing pivotal Phase 2b or Phase 3 clinical trials will demonstrate similar results.

In our completed Phase 2b dose-ranging clinical trial, the 60 mg dose of FX006 unexpectedly showed inferior efficacy compared to the 40 mg dose. While we have investigated potential causes of this clinical outcome and believe we understand the basis for the performance of the 60 mg dose, we may not be correct. Therefore, we cannot guarantee that the underlying cause is unique to the 60 mg dose and will not impact the doses we are studying in our pivotal Phase 2b clinical trial, or will not otherwise result in regulatory delays or the need for additional studies prior to seeking or obtaining regulatory approval.

We have conducted preclinical toxicology studies in healthy dogs with single and repeat doses of FX006, blank microspheres and immediate-release TCA. The findings from the studies related to the administration of TCA were similar between the immediate-release TCA and FX006 groups and known effects of immediaterelease TCA. In the single-dose study, local cartilage findings of reduced extracellular matrix had completely reversed by the end of the nine-month recovery period in both the FX006 and TCA study arms. In the repeatdose toxicity study, three doses were administered either one month or three months apart. A larger reduction in extracellular matrix in cartilage was noted which partially recovered by six months following the last dose, however, structural changes in cartilage were observed with repeat administrations of both FX006 and immediate-release TCA. All of our clinical trials to date have been or are being conducted with single doses of FX006. However, we intend to study FX006 in a separate repeat dose safety clinical trial and to submit repeat dose data in a supplemental NDA after an approval and launch of FX006 for single-dose administration. Immediate-release TCA has a long history of safe clinical use in patients and in a randomized, double-blind clinical trial conducted in 2003 by Raynauld et al administering immediate-release TCA or saline every three months for up to two years in 68 OA patients, it was well-tolerated and demonstrated no deleterious effects in the knee joint when assessed by clinical exam and X-ray evaluation. Nonetheless, it is possible that we could observe similar outcomes to those observed in our preclinical studies with repeated doses of FX006 that would harm our ability to maintain regulatory approval or would limit the commercial potential of FX006.

Product candidates in later stages of clinical trials may fail to show the desired safety and efficacy traits despite having progressed through preclinical studies and initial clinical trials. In addition to the safety and

efficacy traits of any product candidate, clinical trial failures may result from a multitude of factors including flaws in trial design, dose selection, placebo effect and patient enrollment criteria. A number of companies in the biopharmaceutical industry have suffered significant setbacks in advanced clinical trials due to lack of efficacy or adverse safety profiles, notwithstanding promising results in earlier trials. Based upon negative or inconclusive results, we or our collaborators may decide, or regulators may require us, to conduct additional clinical trials or preclinical studies. In addition, data obtained from trials and studies are susceptible to varying interpretations, and regulators may not interpret our data as favorably as we do, which may delay, limit or prevent regulatory approval. Our future clinical trial results may not be successful.

If FX006 or any other product candidate is found to be unsafe or lack efficacy, we will not be able to obtain regulatory approval for it and our business would be materially harmed. For example, if the results of our ongoing pivotal Phase 2b or Phase 3 or other clinical trials for FX006 demonstrate unexpected safety findings or do not achieve the primary efficacy endpoints, the prospects for approval of FX006 as well our stock price and our ability to create stockholder value would be materially and adversely affected.

In some instances, there can be significant variability in safety and/or efficacy results between different trials of the same product candidate due to numerous factors, including changes in trial protocols, differences in composition of the patient populations, adherence to the dosing regimen and other trial elements and the rate of dropout among clinical trial participants. We do not know whether any future clinical trials we may conduct will demonstrate consistent or adequate efficacy and safety to obtain regulatory approval to market our product candidates. If we are unable to bring any of our current or future product candidates to market, our ability to create long-term stockholder value will be limited.

#### If the FDA does not conclude that FX006 satisfies the requirements for the Section 505(b)(2) regulatory approval pathway, or if the requirements for FX006 under Section 505(b)(2) are not as we expect, the approval pathway for FX006 will likely take significantly longer, cost significantly more and entail significantly greater complications and risks than anticipated, and in either case may not be successful.

We intend to seek FDA approval through the Section 505(b)(2) regulatory pathway for FX006. The Drug Price Competition and Patent Term Restoration Act of 1984, also known as the Hatch-Waxman Amendments, added Section 505(b)(2) to the FDCA. Section 505(b)(2) permits the filing of an NDA where at least some of the information required for approval comes from studies not conducted by or for the applicant and for which the applicant has not obtained a right of reference.

Even if we are allowed to pursue the Section 505(b)(2) regulatory pathway, we may still need to conduct additional trials and we cannot guarantee that FX006 will receive the requisite approvals for commercialization. If this were to occur, the time and financial resources required to obtain FDA approval for FX006, and complications and risks associated with FX006, would likely substantially increase. We may also need to obtain additional funding, which could result in significant dilution to the ownership interests of our then existing stockholders to the extent we issue equity securities or convertible debt. We cannot assure you that we would be able to obtain such additional financing on terms acceptable to us, if at all. Moreover, inability to pursue the Section 505(b)(2) regulatory pathway could result in new competitive products reaching the market faster than FX006, which could materially adversely impact our competitive position and prospects.

In addition, notwithstanding the approval of a number of products by the FDA under Section 505(b)(2) over the last few years, some pharmaceutical companies and others have objected to the FDA's interpretation of Section 505(b)(2). If the FDA's interpretation of Section 505(b)(2) is successfully challenged, the FDA may be required to change its Section 505(b)(2) policies and practices, which could delay or even prevent the FDA from approving any NDA that we submit under Section 505(b)(2).

### Delays in clinical trials are common and have many causes, and any delay could result in increased costs to us and jeopardize or delay our ability to obtain regulatory approval and commence product sales.

We may experience delays in clinical trials of our product candidates. We are conducting a pivotal Phase 2b clinical trial of FX006, for which we expect to report topline data in the fourth quarter of 2015. We also initiated a Phase 3 clinical trial of FX006 in February 2015 and expect to report topline data in the first half of 2016. We are conducting preclinical local pharmacology and toxicology experiments and plan to initiate a PoC clinical trial for FX007 following the generation of the additional preclinical data. Our clinical trials may not begin on time, have an effective design, enroll a sufficient number of patients, or be completed on schedule, if at all. Our clinical trials can be delayed for a variety of reasons, including:

- inability to raise funding necessary to initiate or continue a trial;
- delays in obtaining regulatory approval to commence a trial;
- delays in reaching agreement with the FDA on final trial design;
- imposition of a clinical hold for safety reasons or following an inspection of our clinical trial operations or trial sites by the FDA or other regulatory authorities;
- delays in reaching agreement on acceptable terms with prospective contract research organizations, or CROs, and clinical trial sites;
- delays in obtaining required institutional review board approval at each site;
- delays in recruiting suitable patients to participate in a trial;
- delays in having patients complete participation in a trial or return for post-treatment follow-up;
- clinical sites dropping out of a trial to the detriment of enrollment;
- time required to add new clinical sites; or
- delays by our contract manufacturers to produce and deliver sufficient supply of clinical trial materials.

For example, our completed Phase 2b dose-ranging clinical trial for FX006 was initially subject to a clinical hold imposed by the FDA due to the observation of effects of PLGA microspheres on synovial tissue from FX006 injections. While we were able to begin enrollment initially at non-U.S. sites and later at U.S. sites after the clinical hold was lifted without restriction by the FDA, the hold delayed our completion of the trial and resulted in additional expense. Also on September 16, 2014, the FDA notified us that it had placed a clinical hold on the FX006 IND due to a single occurrence of what was then reported to be septic arthritis, an infection of the injected knee joint, of a patient in the clinical trial. While the clinical hold was lifted on December 1, 2014 following our successful completion of testing and investigation requested by the FDA, the hold has delayed the completion of our pivotal Phase 2b clinical trial and delayed the initiation of our Phase 3 clinical trial.

If initiation or completion of our clinical trials are delayed for any of the above reasons or other reasons, our development costs may increase, our approval process could be delayed and our ability to commercialize and commence sales of our product candidates could be materially harmed, which could have a material adverse effect on our business.

### Our product candidates may cause adverse events or have other properties that could delay or prevent their regulatory approval or limit the scope of any approved label or market acceptance.

Adverse events, or AEs, caused by our product candidates or other potentially harmful characteristics of our product candidates could cause us, other reviewing entities, clinical trial sites or regulatory authorities to interrupt, delay or halt clinical trials and could result in the denial of regulatory approval. For example, in rat toxicology studies with repeat doses of FX005, an abnormal decrease of cartilage cells and components of cartilage matrix was observed. Based on these findings, we conducted additional non-clinical studies involving different doses and/or dose frequencies for FX005 to guide further clinical development. While we have

identified a lower dose of FX005 that avoids these toxicology issues, we will need to demonstrate that doses lower than those used in the Phase 2a clinical trial will be effective, or we may need to pursue further development of FX005 as a single-dose treatment, which could limit its overall market potential.

While no serious adverse events, or SAEs, related to study drug have been observed in any of our clinical trials to date, there have been some AEs at least possibly related to the study drug. For example, although 17.6% of patients treated with immediate-release TCA experienced AEs, 10.7% of FX006 patients were judged by their physicians to have an AE at least possibly related to study drug. The most commonly observed FX006 AEs were arthralgia (joint pain) and joint stiffness and were generally mild to moderate in severity. If drug-related SAEs are observed in any of our clinical trials, our ability to obtain regulatory approval for our product candidates may be adversely impacted.

Further, if any of our approved products cause serious or unexpected side effects after receiving market approval, a number of potentially significant negative consequences could result, including:

- regulatory authorities may withdraw their approval of the product or impose restrictions on its distribution in the form of a modified Risk Evaluation and Mitigation Strategy;
- regulatory authorities may require the addition of labeling statements, such as warnings or contraindications;
- we may be required to change the way the product is administered or conduct additional clinical studies;
- we could be sued and held liable for harm caused to patients; or
- our reputation may suffer.

Any of these events could prevent us from achieving or maintaining market acceptance of the affected product candidate and could substantially increase the costs of commercializing our product candidates.

# The regulatory approval processes of the FDA and comparable foreign authorities are lengthy, time consuming and inherently unpredictable, and if we are ultimately unable to obtain regulatory approval for our product candidates, our business will be substantially harmed.

The time required to obtain approval by the FDA and comparable foreign authorities is unpredictable but typically takes many years following the commencement of clinical trials and depends upon numerous factors, including the substantial discretion of the regulatory authorities. In addition, approval policies, regulations, or the type and amount of clinical data necessary to gain approval may change during the course of a product candidate's clinical development and may vary among jurisdictions. For example, we cannot guarantee that the FDA will not require additional or different clinical trials in support of our submission of an NDA for FX006 despite the most recent guidance we have received from the FDA. We have not obtained regulatory approval for any product candidate, and it is possible that none of our existing product candidates or any product candidates we may seek to develop in the future will ever obtain regulatory approval.

Our product candidates could fail to receive regulatory approval for many reasons, including the following:

- the FDA or comparable foreign regulatory authorities may disagree with the design, scope or implementation of our clinical trials;
- we may be unable to demonstrate to the satisfaction of the FDA or comparable foreign regulatory authorities that a product candidate is safe and effective for its proposed indication;
- the results of clinical trials may not meet the level of statistical significance required by the FDA or comparable foreign regulatory authorities for approval;
- we may be unable to demonstrate that a product candidate's clinical and other benefits outweigh its safety risks;

- the FDA or comparable foreign regulatory authorities may disagree with our interpretation of data from preclinical studies or clinical trials;
- the data collected from clinical trials of our product candidates may not be sufficient to support the submission of an NDA or other submission or to obtain regulatory approval in the United States or elsewhere;
- the FDA or comparable foreign regulatory authorities may fail to approve the manufacturing processes or facilities of third party manufacturers with which we contract for clinical and commercial supplies; and
- the approval policies or regulations of the FDA or comparable foreign regulatory authorities may change significantly in a manner rendering our clinical data insufficient for approval.

This lengthy approval process, as well as the unpredictability of future clinical trial results, may result in our failing to obtain regulatory approval to market FX006 or our other product candidates, which would harm our business, results of operations and prospects significantly.

In addition, even if we were to obtain approval, regulatory authorities may approve any of our product candidates for fewer or more limited indications than we request, may not approve the price we intend to charge for our products, may grant approval contingent on the performance of costly post-marketing clinical trials, or may approve a product candidate with a label that does not include the labeling claims necessary or desirable for the successful commercialization of that product candidate. Any of the foregoing scenarios could harm the commercial prospects for our product candidates. For example, we believe that, to the extent our clinical development of FX006 continues to focus on knee OA, any initial indication of FX006 would be limited to the treatment of knee OA, as opposed to the treatment of OA generally. If an initial indication is limited to knee OA, we would likely need to conduct additional clinical trials in order to market FX006 for other indications and expand its market potential. In addition, we are choosing to pursue an initial approval of FX006 for single-dose administration. While we intend to develop and submit clinical data for repeated dosing of FX006 in a supplemental NDA, if we were unable to expand the label for FX006 to include repeat dosing, our ability to fully market FX006 would be limited.

We have not previously submitted an NDA or any similar drug approval filing to the FDA or any comparable foreign authority for any product candidate, and we cannot be certain that any of our product candidates will be successful in clinical trials or receive regulatory approval. Further, our product candidates may not receive regulatory approval even if they are successful in clinical trials. If we do not receive regulatory approval for our product candidates, we may not be able to continue our operations. Even if we successfully obtain regulatory approval to market one or more of our product candidates, our revenue will be dependent, to a significant extent, upon the size of the markets in the territories for which we gain regulatory approval. If the markets for patients or indications that we are targeting are not as significant as we estimate, we may not generate significant revenue from sales of such products, if approved.

### The FDA and other regulatory agencies actively enforce the laws and regulations prohibiting the promotion of off-label uses.

If any of our product candidates are approved and we are found to have improperly promoted off-label uses of those products, we may become subject to significant liability. The FDA and other regulatory agencies strictly regulate the promotional claims that may be made about prescription products, such as our product candidates, if approved. In particular, a product may not be promoted for uses that are not approved by the FDA or such other regulatory agencies as reflected in the product's approved labeling. For example, if we receive marketing approval for FX006 as a single-dose therapy for knee OA, physicians may nevertheless use FX006 for their patients in a manner that is inconsistent with the approved label, potentially including repeat dosing or as an injection in other joints. If we are found to have promoted such off-label uses, we may become subject to significant liability. The federal government has levied large civil and criminal fines against companies for

alleged improper promotion of off-label use and has enjoined several companies from engaging in off-label promotion. The FDA has also requested that companies enter into consent decrees or permanent injunctions under which specified promotional conduct is changed or curtailed. If we cannot successfully manage the promotion of our product candidates, if approved, we could become subject to significant liability, which would materially adversely affect our business and financial condition.

### Even if we obtain regulatory approval for FX006 or other product candidates, we will still face extensive regulatory requirements and our products may face future development and regulatory difficulties.

Even if we obtain regulatory approval in the United States, the FDA may still impose significant restrictions on the indicated uses or marketing of our product candidates, or impose ongoing requirements for potentially costly post-approval studies or post-market surveillance. FX006 and our other product candidates, if approved, will also be subject to ongoing FDA requirements governing the labeling, packaging, storage, distribution, safety surveillance, advertising, promotion, record-keeping and reporting of safety and other post-market information. The holder of an approved NDA is obligated to monitor and report AEs and any failure of a product to meet the specifications in the NDA. The holder of an approved NDA must also submit new or supplemental applications and obtain FDA approval for certain changes to the approved product, product labeling or manufacturing process. Advertising and promotional materials must comply with FDA rules and are subject to FDA review, in addition to other potentially applicable federal and state laws.

In addition, manufacturers of drug products and their facilities are subject to payment of user fees and continual review and periodic inspections by the FDA and other regulatory authorities for compliance with current good manufacturing practices, or cGMP, and adherence to commitments made in the NDA. If we or a regulatory agency discovers previously unknown problems with a product, such as AEs of unanticipated severity or frequency, or problems with the facility where the product is manufactured, a regulatory agency may impose restrictions relative to that product or the manufacturing facility, including requiring recall or withdrawal of the product from the market or suspension of manufacturing.

If we fail to comply with applicable regulatory requirements following approval of a product candidate, a regulatory agency may:

- issue a warning letter asserting that we are in violation of the law;
- seek an injunction or impose civil or criminal penalties or monetary fines;
- suspend or withdraw regulatory approval;
- suspend any ongoing clinical trials;
- refuse to approve a pending NDA or supplements to an NDA submitted by us;
- · seize product; or
- refuse to allow us to enter into supply contracts, including government contracts.

Any government investigation of alleged violations of law could require us to expend significant time and resources in response and could generate negative publicity. The occurrence of any event or penalty described above may inhibit our ability to commercialize our products and generate revenue.

Any relationships with potential customers and third-party payors may be subject, directly or indirectly, to federal and state healthcare fraud and abuse laws, false claims laws, marketing expenditure tracking and disclosure (or "sunshine") laws, government price reporting, and health information privacy and security laws. If we are unable to comply, or have not fully complied, with such laws, we could face criminal sanctions, civil penalties, contractual damages, reputational harm and diminished profits and future earnings.

Our operations may be directly, or indirectly, subject to various federal and state fraud and abuse laws, including, without limitation, the federal Anti-Kickback Statute and the federal False Claims Act. If we obtain

FDA approval for any of our product candidates and begin commercializing those products in the United States, our potential exposure under such laws will increase significantly, and our costs associated with compliance are also likely to increase. These laws may impact, among other things, our current activities with investigators and research subjects, as well as proposed sales, marketing and education programs. In addition, we may be subject to patient privacy regulation by the federal government and by the U.S. states and foreign jurisdictions in which we conduct our business. The laws that may affect our ability to operate include, but are not limited to:

- the federal Anti-Kickback Statute, which prohibits, among other things, knowingly and willfully soliciting, receiving, offering or paying remuneration, directly or indirectly, to induce, or in return for, either the referral of an individual, or the purchase or recommendation of an item or service for which payment may be made under a federal healthcare program, such as the Medicare and Medicaid programs;
- federal civil and criminal false claims laws and civil monetary penalty laws, which prohibit, among other things, individuals or entities from knowingly presenting, or causing to be presented, claims for payment from Medicare, Medicaid or other third-party payors that are false or fraudulent or making a false statement to avoid, decrease or conceal an obligation to pay money to the federal government;
- the federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, which created new federal criminal statutes that prohibit executing a scheme to defraud any healthcare benefit program and making false statements relating to healthcare matters;
- HIPAA, as amended by the Health Information Technology and Clinical Health Act of 2009, and their respective implementing regulations, which impose requirements on certain covered healthcare providers, health plans, and healthcare clearinghouses as well as their business associates that perform services involving the use or disclosure of individually identifiable health information, relating to the privacy, security and transmission of individually identifiable health information;
- the federal Open Payments program, created under Section 6002 of the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act of 2010, collectively, PPACA, and its implementing regulations requires manufacturers of drugs, devices, biologics and medical supplies for which payment is available under Medicare, Medicaid or the Children's Health Insurance Program (with certain exceptions) to report annually to the United States Department of Health and Human Services, or HHS, information related to "payments or other transfers of value" made to physicians (defined to include doctors, dentists, optometrists, podiatrists and chiropractors) and teaching hospitals, and applicable manufacturers and applicable group purchasing organizations to report annually to HHS ownership and investment interests held by physicians (as defined above) and their immediate family members;
- state and foreign law equivalents of each of the above federal laws, such as anti-kickback and false claims laws which may apply to sales or marketing arrangements and claims involving healthcare items or services reimbursed by any third-party payor, including commercial insurers; state and foreign laws that 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 restrict payments that may be made to healthcare providers; state and foreign laws that require drug manufacturers to report information related to payments and other transfers of value to physicians and other healthcare providers or marketing expenditures; 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 may not have the same effect, thus complicating compliance efforts;
- the Foreign Corrupt Practices Act, a U.S. law which regulates certain financial relationships with foreign government officials (which could include, for example, certain medical professionals); and
- federal and state consumer protection and unfair competition laws, which broadly regulate marketplace activities and activities that potentially harm consumers.

In addition, the FDA approval and commercialization of any of our product candidates in the United States will also likely subject us to the following types of laws, among others:

- state and federal government price reporting laws that require us to calculate and report complex pricing metrics to government programs, where such reported prices may be used in the calculation of reimbursement and/or discounts on our marketed drugs (participation in these programs and compliance with the applicable requirements may subject us to potentially significant discounts on our products, increased infrastructure costs, and potentially limit our ability to offer certain marketplace discounts); and
- state and federal marketing expenditure tracking and reporting laws, which generally require certain types of expenditures in the United States to be tracked and reported (compliance with such requirements may require investment in infrastructure to ensure that tracking is performed properly, and some of these laws result in the public disclosure of various types of payments and relationships, which could potentially have a negative effect on our business and/or increase enforcement scrutiny of our activities).

Efforts to ensure that our business arrangements with third parties will comply with applicable healthcare laws and regulations may involve substantial costs. It is possible that governmental authorities will conclude that our business practices may not comply with current or future statutes, regulations or case law interpreting applicable fraud and abuse or other healthcare laws and regulations. If our operations are found to be in violation of any of the laws described above or any other governmental regulations that apply to us, we may be subject to penalties, including, without limitation, civil, criminal, and administrative penalties, damages, fines, imprisonment, possible exclusion from participation in Medicare, Medicaid and other government healthcare programs, and curtailment or restructuring of our operations, any of which could adversely affect our ability to operate our business and our results of operations.

# Even if we obtain FDA approval for FX006 or any other product candidate in the United States, we may never obtain approval for or commercialize our product candidates outside of the United States, which would limit our ability to realize their full market potential.

In order to market any products outside of the United States, we must establish and comply with numerous and varying regulatory requirements of other countries regarding safety and efficacy. Clinical trials conducted in one country may not be accepted by regulatory authorities in other countries, and regulatory approval in one country does not mean that regulatory approval will be obtained in any other country. Approval processes vary among countries and can involve additional product testing and validation and additional administrative review periods. Seeking foreign regulatory approval could result in difficulties and costs for us and require additional non-clinical studies or clinical trials which could be costly and time consuming. Regulatory requirements can vary widely from country to country and could delay or prevent the introduction of our products in those countries. We do not have any product candidates approved for sale in any jurisdiction, including international markets, and we do not have experience in obtaining regulatory approval in international markets. If we fail to comply with regulatory requirements in international markets or to obtain and maintain required approvals, or if regulatory approval in international markets are delayed, our target market will be reduced and our ability to realize the full market potential of our products will be harmed.

### If we fail to develop, acquire or in-license other product candidates or products, our business and prospects will be limited.

Our long-term growth strategy is to develop, acquire or in-license and commercialize a portfolio of product candidates in addition to FX006 and our other existing product candidates. We do not have internal new drug discovery capabilities. As a result, our primary means of expanding our pipeline of product candidates is to develop improved formulations and delivery methods for existing FDA-approved products and/or select and acquire or in-license product candidates for the treatment of therapeutic indications that complement or augment

our current targets, or that otherwise fit into our development or strategic plans on terms that are acceptable to us. Developing new formulations of existing products or identifying, selecting and acquiring or licensing promising product candidates requires substantial technical, financial and human resources expertise. Efforts to do so may not result in the actual development, acquisition or license of a particular product candidate, potentially resulting in a diversion of our management's time and the expenditure of our resources with no resulting benefit. If we are unable to add additional product candidates to our pipeline, our long-term business and prospects will be limited.

#### **Risks Related to Our Reliance on Third Parties**

We rely on third parties to conduct our preclinical studies and clinical trials. If these third parties do not successfully carry out their contractual duties or meet expected deadlines, we may not be able to obtain regulatory approval for or commercialize our product candidates and our business could be substantially harmed.

We rely upon and plan to continue to rely upon third party CROs to monitor and manage data for our preclinical and clinical programs. We rely on these parties for execution of our preclinical studies and clinical trials, and control only certain aspects of their activities. Nevertheless, we are responsible for ensuring that each of our trials is conducted in accordance with the applicable protocol, legal, regulatory and scientific standards and our reliance on the CROs does not relieve us of our regulatory responsibilities. We and our CROs are required to comply with FDA laws and regulations regarding current good clinical practice, or GCP, which are also required by the Competent Authorities of the Member States of the European Economic Area and comparable foreign regulatory authorities in the form of International Conference on Harmonization guidelines for all of our products in clinical development. Regulatory authorities enforce GCP through periodic inspections of trial sponsors, principal investigators and trial sites. If we or any of our CROs fail to comply with applicable GCP, the clinical data generated in our clinical trials may be deemed unreliable and the FDA or comparable foreign regulatory authorities may require us to perform additional clinical trials before approving our marketing applications. We cannot assure you that upon inspection by a given regulatory authority, such regulatory authority will determine that any of our clinical trials comply with GCP regulations. In addition, our clinical trials must be conducted with product produced under cGMP regulations. While we have agreements governing activities of our CROs, we have limited influence over their actual performance. In addition, portions of the clinical trials for our product candidates are being conducted outside of the United States, which will make it more difficult for us to monitor CROs and perform visits of our clinical trial sites and will force us to rely heavily on CROs to ensure the proper and timely conduct of our clinical trials and compliance with applicable regulations, including GCP. Failure to comply with applicable regulations in the conduct of the clinical trials for our product candidates may require us to repeat clinical trials, which would delay the regulatory approval process.

Some of our CROs have an ability to terminate their respective agreements with us if, among other reasons, it can be reasonably demonstrated that the safety of the subjects participating in our clinical trials warrants such termination, if we make a general assignment for the benefit of our creditors or if we are liquidated. If any of our relationships with these third party CROs terminate, we may not be able to enter into arrangements with alternative CROs or to do so on commercially reasonable terms. In addition, our CROs are not our employees, and except for remedies available to us under our agreements with such CROs, we cannot control whether or not they devote sufficient time and resources to our preclinical and clinical programs. If CROs do not successfully carry out their contractual duties or obligations or meet expected deadlines, if they need to be replaced or if the quality or accuracy of the clinical data they obtain is compromised due to the failure to adhere to our clinical protocols, regulatory requirements or for other reasons, our clinical trials may be extended, delayed or terminated and we may not be able to obtain regulatory approval for or successfully commercialize our product candidates. Consequently, our results of operations and the commercial prospects for our product candidates would be harmed, our costs could increase substantially and our ability to generate revenue could be delayed significantly.

Switching or adding additional CROs involves additional cost and requires management time and focus. In addition, there is a natural transition period when a new CRO commences work. As a result, delays occur, which

can materially impact our ability to meet our desired clinical development timelines. Though we carefully manage our relationships with our CROs, there can be no assurance that we will not encounter challenges or delays in the future or that these delays or challenges will not have a material adverse impact on our business, financial condition and prospects.

#### We rely completely on third parties to manufacture our preclinical and clinical drug supplies and we intend to rely on third parties to produce commercial supplies of any approved product candidate.

If we were to experience an unexpected loss of supply of our product candidates for any reason, whether as a result of manufacturing, supply or storage issues or otherwise, we could experience delays, disruptions, suspensions or terminations of, or be required to restart or repeat, clinical trials. We do not currently have nor do we plan to acquire the infrastructure or capability internally to manufacture our preclinical and clinical drug supplies and we lack the resources and the capability to manufacture any of our product candidates on a clinical or commercial scale. The facilities used by our contract manufacturers or other third party manufacturers to manufacture our product candidates must be approved by the FDA. While we work closely with our third party manufacturers on the manufacturing process for our product candidates, including quality audits, we generally do not control the implementation of the manufacturing process of, and are completely dependent on, our contract manufacturers or other third party manufacturers for compliance with cGMP regulatory requirements and for manufacture of both active drug substances and finished drug products. If our contract manufacturers or other third party manufacturers cannot successfully manufacture material that conforms to applicable specifications and the strict regulatory requirements of the FDA or others, they will not be able to secure and/or maintain regulatory approval for their manufacturing facilities. In addition, we have no control over the ability of our contract manufacturers or other third party manufacturers to maintain adequate quality control, quality assurance and qualified personnel. If the FDA or a comparable foreign regulatory authority does not approve these facilities for the manufacture of our product candidates or if it withdraws any such approval in the future, we may need to find alternative manufacturing facilities, which would significantly impact our ability to develop, obtain regulatory approval for or market our product candidates, if approved.

We rely on our manufacturers to purchase from third party suppliers the materials necessary to produce our product candidates for our clinical trials. There are a limited number of suppliers for raw materials that we use to manufacture our drugs and there may be a need to assess alternate suppliers to prevent a possible disruption of the manufacture of the materials necessary to produce our product candidates for our clinical trials, and if approved, for commercial sale. We do not have any control over the process or timing of the acquisition of these raw materials by our manufacturers. Moreover, we currently do not have any agreements for the commercial product candidate to complete the clinical trial, any significant delay in the supply of a product candidate to complete the clinical trial, any significant delay in the supply of a product candidate, or the raw material components thereof, for an ongoing clinical trial due to the need to replace a contract manufacturer or other third party manufacturer could considerably delay completion of our clinical trials, product testing and potential regulatory approval of our product candidates. If our manufacturers or we are unable to purchase these raw materials after regulatory approval has been obtained for our product candidates, the commercial launch of our product candidates would be delayed or there would be a shortage in supply, which would impair our ability to generate revenue from the sale of our product candidates.

We expect to continue to depend on contract manufacturers or other third party manufacturers for the foreseeable future. We have not entered into long-term commercial supply agreements with our current contract manufacturers or with any alternate fill/finish suppliers. Although we intend to do so prior to any commercial launch in order to ensure that we maintain adequate supplies of finished drug product, we may be unable to enter into such an agreement or do so on commercially reasonable terms, which could have a material adverse impact upon our business.

### We rely on limited sources of supply for our product candidates and any disruption in the chain of supply may cause delay in developing and commercializing our product candidates.

Currently, for FX006, we use Farmabios SpA as our sole source of TCA, and for both FX006 and FX005, Evonik Corporation as our sole source of finished microspheres drug product. Because of the unique equipment and process for loading TCA onto PLGA microspheres, transferring manufacturing activities for FX006 to an alternate supplier would be a time-consuming and costly endeavor, and there are only a limited number of manufacturers that we believe are capable of performing this function for us. Switching FX006 finished drug suppliers may involve substantial cost and could result in a delay in our desired clinical and commercial timelines. For FX006, we expect that initially only one supplier will be qualified as a vendor with the FDA. If supply from the approved vendor is interrupted, there could be a significant disruption in commercial supply. Any alternative vendor would need to be qualified through an NDA supplement which could result in further delay. The FDA or other regulatory agencies outside of the United States may also require additional studies if a new FX006 supplier is relied upon for commercial production.

These factors could cause the delay of clinical trials, regulatory submissions, required approvals or commercialization of our product candidates, cause us to incur higher costs and prevent us from commercializing them successfully. Furthermore, if our suppliers fail to deliver the required commercial quantities of active pharmaceutical ingredient on a timely basis and at commercially reasonable prices, and we are unable to secure one or more replacement suppliers capable of production at a substantially equivalent cost, our clinical trials may be delayed or we could lose potential revenue.

### Manufacturing issues may arise that could increase product and regulatory approval costs or delay commercialization.

As we scale up manufacturing of our product candidates and conduct required stability testing, we may encounter product, packaging, equipment and process-related issues that may require refinement or resolution in order to proceed with our planned clinical trials and obtain regulatory approval for commercial marketing. In the future, we may identify impurities, which could result in increased scrutiny by regulatory authorities, delays in our clinical program and regulatory approval, increases in our operating expenses, or failure to obtain or maintain approval for our product candidates.

### We may not be successful in establishing development and commercialization collaborations which could adversely affect, and potentially prohibit, our ability to develop our product candidates.

Because developing pharmaceutical products, conducting clinical trials, obtaining regulatory approval, establishing manufacturing capabilities and marketing approved products are expensive, we are exploring collaborations with third parties outside of the United States that have more resources and experience. For example, we are exploring selective partnerships with third parties for FX006 development and commercialization outside of the United States. If we are unable to obtain a partner for FX006, we may be unable to advance the development of FX006 in territories outside of the United States, which may limit the market potential for this product candidate. In situations where we enter into a development and commercial collaboration arrangement for a product candidate, we may also seek to establish additional collaborations for development and commercialization in territories outside of those addressed by the first collaboration arrangement for such product candidate. If any of our product candidates receives marketing approval, we may enter into sales and marketing arrangements with third parties with respect to otherwise unlicensed or unaddressed territories outside of the United States. There are a limited number of potential partners, and we expect to face competition in seeking appropriate partners. If we are unable to enter into any development and commercial collaborations and/or sales and marketing arrangements on acceptable terms, if at all, we may be unable to successfully develop and seek regulatory approval for our product candidates and/or effectively market and sell future approved products, if any, in all of the territories outside of the United States where it may otherwise be valuable to do so.

In addition, under the terms of our license agreement with AstraZeneca AB, or AstraZeneca, for FX007, we may not, without the consent of AstraZeneca, grant sublicenses to FX007 except in the territory of Japan prior to the achievement of a specified development milestone. Further, the agreement provides that in the event we desire to offer rights to FX007 to a third party prior to the achievement of a specified development milestone, we must make certain diligence materials available to AstraZeneca, and AstraZeneca will have the right to make an offer to re-acquire rights to FX007. In such circumstances, we are not required to accept AstraZeneca's offer, but we may not enter into an agreement with a third party containing financial terms and conditions that on the whole are more favorable to the third party than the terms and conditions last offered by AstraZeneca. These provisions may limit our ability to partner with a third party during the early development stages of FX007.

# We may not be successful in maintaining development and commercialization collaborations, and our partners may not devote sufficient resources to the development or commercialization of our product candidates or may otherwise fail in development or commercialization efforts, which could adversely affect our ability to develop certain of our product candidates and our financial condition and operating results.

Even if we are able to establish collaboration arrangements, any such collaboration may not ultimately be successful, which could have a negative impact on our business, results of operations, financial condition and growth prospects. If we partner with a third party for development and commercialization of a product candidate, we can expect to relinquish some or all of the control over the future success of that product candidate to the third party. It is possible that a partner may not devote sufficient resources to the development or commercialization of our product candidate or may otherwise fail in development or commercialization efforts, in which event the development and commercialization of such product candidate could be delayed or terminated and our business could be substantially harmed. In addition, the terms of any collaboration or other arrangement that we establish may not prove to be favorable to us or may not be perceived as favorable, which may negatively impact the trading price of our common stock. In some cases, we may be responsible for continuing development of a product candidate or partner may be insufficient to cover the cost of this development. Moreover, collaborations and sales and marketing arrangements are complex and time consuming to negotiate, document and implement and they may require substantial resources to maintain.

We are subject to a number of additional risks associated with our dependence on collaborations with third parties, the occurrence of which could cause our collaboration arrangements to fail. Conflicts may arise between us and partners, such as conflicts concerning the interpretation of clinical data, the achievement of milestones, the interpretation of financial provisions or the ownership of intellectual property developed during the collaboration. If any such conflicts arise, a partner could act in its own self-interest, which may be adverse to our best interests. Any such disagreement between us and a partner could result in one or more of the following, each of which could delay or prevent the development or commercialization of our product candidates, and in turn prevent us from generating sufficient revenue to achieve or maintain profitability:

- reductions in the payment of royalties or other payments we believe are due pursuant to the applicable collaboration arrangement;
- actions taken by a partner inside or outside our collaboration which could negatively impact our rights or benefits under our collaboration; or
- unwillingness on the part of a partner to keep us informed regarding the progress of its development and commercialization activities or to permit public disclosure of the results of those activities.

#### **Risks Related to Commercialization of Our Product Candidates**

### Our commercial success depends upon attaining significant market acceptance of our product candidates, if approved, among physicians, healthcare payors, patients and the medical community.

Even if we obtain regulatory approval for FX006 or any of our other product candidates, the product may not gain market acceptance among physicians, healthcare payors, patients and the medical community, which is critical to commercial success. Market acceptance of any product candidate for which we receive approval depends on a number of factors, including:

- the efficacy and safety as demonstrated in clinical trials;
- the timing of market introduction of the product candidate as well as competitive products;
- the clinical indications for which the product candidate is approved;
- acceptance by physicians, the medical community and patients of the product candidate as a safe and effective treatment;
- the convenience of prescribing and initiating patients on the product candidate;
- the potential and perceived advantages of such product candidate over alternative treatments;
- the cost of treatment in relation to alternative treatments, including any similar generic treatments;
- the availability of coverage and adequate reimbursement and pricing by third-party payors and government authorities;
- relative convenience and ease of administration;
- the prevalence and severity of adverse side effects; and
- the effectiveness of sales and marketing efforts.

If our product candidates, including FX006, are approved but fail to achieve an adequate level of acceptance by physicians, healthcare payors, patients and the medical community, we will not be able to generate significant revenue, and we may not become or remain profitable.

### Guidelines and recommendations published by various organizations can reduce the use of our product candidates.

Government agencies promulgate regulations and guidelines directly applicable to us and to our product candidates. In addition, professional societies, such as the American Academy of Orthopedic Surgeons, practice management groups, private health and science foundations and organizations involved in various diseases from time to time may also publish guidelines or recommendations to the healthcare and patient communities. Recommendations of government agencies or these other groups or organizations may relate to such matters as usage, dosage, route of administration and use of concomitant therapies. Recommendations or guidelines suggesting the reduced use of our product candidates or the use of competitive or alternative products as the standard of care to be followed by patients and healthcare providers could result in decreased use of our product candidates.

### If we are unable to establish sales and marketing capabilities or enter into agreements with third parties to market and sell our product candidates, we may be unable to generate any revenue.

Although we intend to establish a targeted sales and marketing organization to promote any approved products in the United States, we currently have no such organization or capabilities, and the cost of establishing and maintaining such an organization may exceed the cost-effectiveness of doing so. In order to market any products that may be approved, we must build sales, marketing, managerial and other non-technical capabilities or make arrangements with third parties to perform these services. We may enter into strategic partnerships with third parties to commercialize our product candidates outside of the United States.

To date, we have not entered into any strategic partnerships for any of our product candidates. We face significant competition in seeking appropriate strategic partners, and these strategic partnerships can be intricate and time consuming to negotiate and document. We may not be able to negotiate strategic partnerships for territories outside of the United States on acceptable terms, or at all. We are unable to predict when, if ever, we will enter into any strategic partnerships outside of the United States because of the numerous risks and uncertainties associated with establishing strategic partnerships. To the extent that we enter into collaboration arrangements, our future collaboration partners may not dedicate sufficient resources to the commercialization of our product candidates or may otherwise fail in their commercialization due to factors beyond our control. If we are unable to establish effective collaborations to enable the sale of our product candidates in territories outside of the United States, or if our potential future collaboration partners do not successfully commercialize our product candidates in these territories, our ability to generate revenue from product sales will be adversely affected.

If we are unable to negotiate a strategic partnership or obtain additional financial resources for a product candidate, we may be forced to curtail the development of such product candidate, delay potential commercialization, reduce the scope of our sales or marketing activities or undertake development or commercialization activities at our own expense. In addition, without a partnership, we will bear all the risk related to the development of the product candidate, including in territories outside of the United States. If we elect to increase our expenditures to fund development or commercialization activities ourselves, we will need to obtain additional capital, which may not be available to us on acceptable terms, or at all. If we do not have sufficient funds, we will not be able to bring FX006 or any other product candidates to market or generate product revenue.

We and any collaboration partners that we may engage will be competing with many companies that currently have extensive and well-funded marketing and sales operations. If we, alone or with commercialization partners, are unable to compete successfully against these established companies, the commercial success of any approved products will be limited.

### If we obtain approval to commercialize any approved products outside of the United States, a variety of risks associated with international operations could materially adversely affect our business.

If FX006 or other product candidates are approved for commercialization, we may enter into agreements with third parties to market these products outside of the United States. We expect that we will be subject to additional risks related to entering into international business relationships, including:

- different regulatory requirements for drug approvals in foreign countries;
- reduced protection for intellectual property rights;
- unexpected changes in tariffs, trade barriers and regulatory requirements;
- economic weakness, including inflation, or political instability in particular foreign economies and markets;
- compliance with tax, employment, immigration and labor laws for employees living or traveling abroad;
- foreign taxes, including withholding of payroll taxes;
- foreign currency fluctuations, which could result in increased operating expenses and reduced revenue, and other obligations incidental to doing business in another country;
- workforce uncertainty in countries where labor unrest is more common than in the United States;
- production shortages resulting from any events affecting raw material supply or manufacturing capabilities abroad; and
- business interruptions resulting from geopolitical actions, including war and terrorism, or natural disasters, including earthquakes, typhoons, floods and fires.

# If we are unable to differentiate our lead product candidate, FX006, from existing generic therapies for the treatment of OA, or if the FDA or other applicable regulatory authorities approve generic products that compete with any of our product candidates, the ability to successfully commercialize those product candidates would be adversely affected.

Immediate-release TCA and other injectable immediate-release steroids, which are the current standard of care, are available in generic form and are therefore relatively inexpensive compared to the price we would expect to receive for FX006. These generic steroids also have well-established market positions and familiarity with physicians, healthcare payors and patients. Although we believe FX006 has the potential for clinically meaningful differentiation in sustained pain relief as compared to immediate-release TCA, as clinical development of FX006 advances and we receive data from additional clinical trials, it is possible that the data will not support such differentiation. If we are unable to achieve significant differentiation for FX006 from immediate-release TCA and other injectable immediate-release steroids, our opportunity for FX006 to achieve premium pricing and be commercialized successfully, if approved, would be adversely affected.

In addition to existing generic steroids, such as immediate-release TCA, the FDA or other applicable regulatory authorities may approve generic products that could compete with our 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 new drug application, or ANDA. The FDCA, FDA regulations and other applicable regulations and policies provide incentives to manufacturers to create modified, non-infringing versions of a drug to facilitate the approval of an ANDA or other application for generic substitutes. These manufacturers might only be required to conduct a relatively inexpensive study to show that their product has the same active ingredient(s), dosage form, strength, route of administration, conditions of use, or labeling as our product candidate and that the generic product is bioequivalent to ours, meaning it is absorbed in the body at the same rate and to the same extent as our product candidate. These generic equivalents, which must meet the same quality standards as branded pharmaceuticals, 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 is typically lost to the generic product. Accordingly, competition from generic equivalents to our product candidates would materially adversely impact our ability to successfully commercialize our product candidates.

### We face significant competition from other biopharmaceutical companies, and our operating results will suffer if we fail to compete effectively.

The biopharmaceutical industries are intensely competitive and subject to rapid and significant technological change. In addition, the competition in the pain and OA market is intense. We have competitors both in the United States and internationally, including major multinational pharmaceutical companies, biotechnology companies and universities and other research institutions. For example, the injectable OA treatment market today includes many injectable immediate-release steroids, including TCA, the active ingredient in FX006, as well as HA injections. In addition, we expect that injectable therapies such as FX006 will continue to be used primarily after oral medications no longer provide adequate pain relief. To the extent that new or improved oral pain medications are introduced that demonstrate better long-term efficacy and safety, patients and physicians may further delay the introduction of injectable therapies such as FX006 in the OA treatment continuum. FX006 could also face competition from other formulations or devices that deliver pain medication on a sustained basis, such as transdermal delivery systems or implantable devices.

Many of our competitors have substantially greater financial, technical and other resources, such as larger research and development staffs and experienced commercial and manufacturing organizations. Mergers and acquisitions in the biotechnology and pharmaceutical industries may result in even more resources being concentrated in our competitors. As a result, these companies may obtain regulatory approval more rapidly than we are able and may be more effective in selling and marketing their products as well. Smaller or early-stage companies may also prove to be significant competitors, particularly through collaborative arrangements with

large, established companies. Competition may increase further as a result of advances in the commercial applicability of technologies and greater availability of capital for investment in these industries. Our competitors may succeed in developing, acquiring or licensing on an exclusive basis drug products or drug delivery technologies that are more effective or less costly than FX006 or any other drug candidate that we are currently developing or that we may develop.

We believe that our ability to successfully compete will depend on, among other things:

- the efficacy and safety of our product candidates, including as relative to marketed products and product candidates in development by third parties;
- the time it takes for our product candidates to complete clinical development and receive marketing approval;
- the ability to maintain a good relationship with regulatory authorities;
- the ability to commercialize and market any of our product candidates that receive regulatory approval;
- the price of our products, including in comparison to branded or generic competitors;
- whether coverage and adequate levels of reimbursement are available under private and governmental health insurance plans, including Medicare;
- the ability to protect intellectual property rights related to our product candidates;
- the ability to manufacture on a cost-effective basis and sell commercial quantities of any of our product candidates that receive regulatory approval; and
- acceptance of any of our product candidates that receive regulatory approval by physicians and other healthcare providers.

If our competitors market products that are more effective, safer or less expensive than our future products, if any, or that reach the market sooner than our future products, if any, we may not achieve commercial success. In addition, the biopharmaceutical industry is characterized by rapid technological change. Because we have limited research and development capabilities, it may be difficult for us to stay abreast of the rapid changes in each technology. If we fail to stay at the forefront of technological change, we may be unable to compete effectively. Technological advances or products developed by our competitors may render our technologies or product candidates obsolete, less competitive or not economical.

# If we are unable to achieve and maintain adequate levels of third-party payor coverage and reimbursement for FX006 or any other product candidates, if approved, on reasonable pricing terms, their commercial success may be severely hindered.

Successful sales of any approved product candidates depend on the availability of adequate coverage and reimbursement from third-party payors. Patients who are prescribed medicine for the treatment of their conditions generally rely on third-party payors to reimburse all or part of the costs associated with their prescription drugs. Adequate coverage and reimbursement from governmental healthcare programs, such as Medicare and Medicaid, and commercial payors is critical to new product acceptance. Coverage decisions may depend upon clinical and economic standards that disfavor new drug products when more established or lower cost therapeutic alternatives are already available or subsequently become available. Assuming we obtain coverage for a given product, the resulting reimbursement payment rates might not be adequate or may require co-payments that patients find unacceptably high. Patients are unlikely to use our products unless coverage is provided and reimbursement is adequate to cover a significant portion of the cost of our products.

In addition, the market for FX006 and any of our other product candidates will depend significantly on access to third-party payors' drug formularies, or lists of medications for which third-party payors provide coverage and reimbursement. The industry competition to be included in such formularies often leads to

downward pricing pressures on pharmaceutical companies. Also, third-party payors may refuse to include a particular branded drug in their formularies or otherwise restrict patient access to a branded drug when a less costly generic equivalent or other alternative is available.

Third-party payors, whether foreign or domestic, or governmental or commercial, are developing increasingly sophisticated methods of controlling healthcare costs. In addition, in the United States, no uniform policy of coverage and reimbursement for drug products exists among third-party payors. Therefore, coverage and reimbursement for drug products can differ significantly from payor to payor. As a result, the coverage determination process is often a time-consuming and costly process that will require us to provide scientific and clinical support for the use of our products to each payor separately, with no assurance that coverage and adequate reimbursement will be obtained.

Further, we believe that future coverage and reimbursement will likely be subject to increased restrictions both in the United States and in international markets. Third party coverage and reimbursement for FX006 or any of our other product candidates for which we may receive regulatory approval may not be available or adequate in either the United States or international markets, which could have a material adverse effect on our business, results of operations, financial condition and prospects.

### Recently enacted and future legislation may increase the difficulty and cost for us to commercialize our product candidates and may affect the prices we may obtain.

The United States and some foreign jurisdictions are considering, or have enacted, a number of legislative and regulatory proposals to change the healthcare system in ways that could affect our ability to sell our product candidates profitably, once they are approved for sale. Among policy makers and payors in the United States and elsewhere, there is significant interest in promoting changes in healthcare systems with the stated goals of containing healthcare costs, improving quality and/or expanding access. In the United States, the pharmaceutical industry has been a particular focus of these efforts and has been significantly affected by major legislative initiatives.

In March 2010, PPACA was enacted, which includes measures that have or will significantly change the way healthcare is financed by both governmental and private insurers. Among the PPACA provisions of importance to the pharmaceutical industry are the following:

- an annual, non-deductible fee on any entity that manufactures or imports certain branded prescription drugs and biologic agents, apportioned among these entities according to their market share in certain government healthcare programs, that began in 2011;
- an increase in the rebates a manufacturer must pay under the Medicaid Drug Rebate Program to 23.1% and 13.0% of the average manufacturer price for branded and generic drugs, respectively;
- a new Medicare Part D coverage gap discount program, in which manufacturers must agree to offer 50.0% point-of-sale discounts to negotiated prices of applicable brand drugs to eligible beneficiaries during their coverage gap period, as a condition for the manufacturer's outpatient drugs to be covered under Medicare Part D;
- extension of manufacturers' Medicaid rebate liability to covered drugs dispensed to individuals who are enrolled in Medicaid managed care organizations;
- expansion of eligibility criteria for Medicaid programs by, among other things, allowing states to offer Medicaid coverage to additional individuals and by adding new mandatory eligibility categories for certain individuals with income at or below 133.0% of the Federal Poverty Level, thereby potentially increasing manufacturers' Medicaid rebate liability;
- expansion of the entities eligible for discounts under the Public Health Service pharmaceutical pricing program;
- new requirements under the federal Open Payments program, created under Section 6002 of PPACA, and its implementing regulations that manufacturers of drugs, devices, biologics and medical supplies

for which payment is available under Medicare, Medicaid or the Children's Health Insurance Program (with certain exceptions) report annually to HHS information related to "payments or other transfers of value" made or distributed to physicians (defined to include doctors, dentists, optometrists, podiatrists and chiropractors) and teaching hospitals, and that applicable manufacturers and applicable group purchasing organizations report annually to HHS ownership and investment interests held by physicians (as defined above) and their immediate family members, with data collection currently required and reporting to the Centers for Medicare & Medicaid Services required by the 90th day of each calendar year;

- a new requirement to annually report drug samples that manufacturers and distributors provide to physicians, effective April 1, 2012;
- expansion of healthcare fraud and abuse laws, including the False Claims Act and the Anti-Kickback Statute, new government investigative powers, and enhanced penalties for non-compliance;
- a licensure framework for follow-on biologic products;
- a new Patient-Centered Outcomes Research Institute to oversee, identify priorities in, and conduct comparative clinical effectiveness research, along with funding for such research;
- creation of the Independent Payment Advisory Board, which has authority to recommend certain changes to the Medicare program that could result in reduced payments for prescription drugs and those recommendations could have the effect of law even if Congress does not act on the recommendations; and
- establishment of a Center for Medicare Innovation at the Centers for Medicare & Medicaid Services to test innovative payment and service delivery models to lower Medicare and Medicaid spending, potentially including prescription drug spending that began on January 1, 2011.

In addition, other legislative changes have been proposed and adopted since PPACA was enacted. In August 2011, the President signed into law the Budget Control Act of 2011, which, among other things, created the Joint Select Committee on Deficit Reduction to recommend proposals in spending reductions to Congress. The Joint Select Committee on Deficit Reduction did not achieve its targeted deficit reduction of at least \$1.2 trillion for the years 2013 through 2021, triggering the legislation's automatic reductions to several government programs. These reductions, which began in 2013, include aggregate reductions to Medicare payments to providers of up to 2% per fiscal year. In January 2013, President Obama signed into law the American Taxpayer Relief Act of 2012, which, among other things, reduced Medicare payments to several providers and increased the statute of limitations period for the government to recover overpayments to providers from three to five years. These new laws may result in additional reductions in Medicare and other healthcare funding, which could have a material adverse effect on our customers and accordingly, our financial operations.

#### **Risks Related to Our Business Operations and Industry**

### Our future success depends on our ability to retain key executives and to attract, retain and motivate qualified personnel.

We are highly dependent on the principal members of our executive team, the loss of whose services may adversely impact the achievement of our objectives. While we have entered into employment agreements or offer letters with each of our executive officers, any of them could leave our employment at any time, as all of our employees are "at will" employees. Recruiting and retaining other qualified employees for our business, including scientific and technical personnel, will also be critical to our success. There is currently a shortage of skilled executives in our industry, which is likely to continue. As a result, competition for skilled personnel is intense and the turnover rate can be high. We may not be able to attract and retain personnel on acceptable terms given the competition among numerous pharmaceutical companies for individuals with similar skill sets. In addition, failure to succeed in clinical studies may make it more challenging to recruit and retain qualified personnel. The inability to recruit or the loss of the services of any executive or key employee might impede the progress of our development and commercialization objectives.

### We will need to expand our organization, and we may experience difficulties in managing this growth, which could disrupt our operations.

As of December 31, 2014, we had 29 full-time employees. As our company matures, we expect to expand our employee base to increase our managerial, scientific and engineering, operational, sales, marketing, financial and other resources and to hire more consultants and contractors. Future growth would impose significant additional responsibilities on our management, including the need to identify, recruit, maintain, motivate and integrate additional employees, consultants and contractors. Also, our management may need to divert a disproportionate amount of its attention away from our day-to-day activities and devote a substantial amount of time to managing these growth activities. We may not be able to effectively manage the expansion of our operations, which may result in weaknesses in our infrastructure, give rise to operational mistakes, loss of business opportunities, loss of employees and reduced productivity among remaining employees. Future growth could require significant capital expenditures and may divert financial resources from other projects, such as the development of our existing or future product candidates. If our management is unable to effectively manage our growth, our expenses may increase more than expected, our ability to generate and/or grow revenue could be reduced, and we may not be able to implement our business strategy. Our future financial performance and our ability to commercialize FX006 and our other product candidates, if approved, and compete effectively will depend, in part, on our ability to effectively manage any future growth.

### We face potential product liability, and, if successful claims are brought against us, we may incur substantial liability.

The use of our product candidates in clinical trials and the sale of any products for which we obtain marketing approval exposes us to the risk of product liability claims. Product liability claims might be brought against us by consumers, healthcare providers, pharmaceutical companies or others selling or otherwise coming into contact with our product candidates. If we cannot successfully defend against product liability claims, we could incur substantial liability and costs. In addition, regardless of merit or eventual outcome, product liability claims may result in:

- impairment of our business reputation;
- withdrawal of clinical trial participants;
- costs due to related litigation;
- distraction of management's attention from our primary business;
- substantial monetary awards to patients or other claimants;
- the inability to commercialize our product candidates; and
- decreased demand for our product candidates, if approved for commercial sale.

We currently carry product liability insurance with limits of \$10 million in the aggregate and \$10 million per occurrence. Our current product liability insurance coverage may not be sufficient to reimburse us for any expenses or losses we may suffer. Moreover, insurance coverage is becoming increasingly expensive and in the future we may not be able to maintain insurance coverage at a reasonable cost or in sufficient amounts to protect us against losses due to liability. If and when we obtain marketing approval for our product candidates, we intend to expand our insurance coverage to include the sale of commercial products; however, we may be unable to obtain product liability insurance on commercially reasonable terms or in adequate amounts. On occasion, large judgments have been awarded in class action lawsuits based on drugs that had unanticipated adverse effects. A successful product liability claim or series of claims brought against us could cause our stock price to decline and, if judgments exceed our insurance coverage, could adversely affect our results of operations and business.

#### We rely significantly on information technology and any failure, inadequacy, interruption or security lapse of that technology, including any cybersecurity incidents, could harm our ability to operate our business effectively.

Despite the implementation of security measures, our internal computer systems and those of third parties with which we contract are vulnerable to damage from cyber-attacks, computer viruses, unauthorized access, natural disasters, terrorism, war and telecommunication and electrical failures. System failures, accidents or security breaches could cause interruptions in our operations, and could result in a material disruption of our clinical activities and business operations, in addition to possibly requiring substantial expenditures of resources to remedy. The loss of clinical trial data could result in delays in our regulatory approval efforts and significantly increase our costs to recover or reproduce the data. To the extent that any disruption or security breach were to result in a loss of, or damage to, our data or applications, or inappropriate disclosure of confidential or proprietary information, we could incur liability and our development programs and the development of our product candidates could be delayed.

### Business interruptions could delay us in the process of developing our product candidates and could disrupt our sales.

Our headquarters are located in Burlington, Massachusetts. We are vulnerable to natural disasters such as hurricanes, tornadoes and severe storms, as well as other events that could disrupt our operations. We do not carry insurance for natural disasters and we may not carry sufficient business interruption insurance to compensate us for losses that may occur. Any losses or damages we incur could have a material adverse effect on our business operations.

#### **Risks Related to Our Intellectual Property**

### If we are unable to obtain or protect intellectual property rights related to our product candidates, we may not be able to compete effectively in our market.

We rely upon a combination of patents, trade secret protection, confidentiality agreements and proprietary know how, and intend to seek marketing exclusivity for any approved product, in order to protect the intellectual property related to product candidates, and to date we have only one issued patent covering FX006. The strength of patents in the biotechnology and pharmaceutical field involves complex legal and scientific questions and can be uncertain. The patent applications that we own or in-license may fail to result in issued patents with claims that cover our product candidates in the United States or in other foreign countries. If this were to occur, early generic competition could be expected against FX006 and potentially our other product candidates in development. Even if patents do successfully issue, third parties may challenge their validity, enforceability or scope, which may result in such patents being narrowed or invalidated. Also, a third party may challenge our ownership of patents and patent applications assigned to us, or may challenge our exclusive rights to patents and patent applications that we license from third parties. Furthermore, even if they are unchallenged, our patents and patent applications may not adequately protect our intellectual property or prevent others from designing around our claims. If the additional patent applications we hold with respect to FX006 or our other product candidates fail to issue or if their breadth or strength of protection is threatened, it could dissuade companies from collaborating with us to develop them and threaten our ability to commercialize any resulting products. We cannot offer any assurances about which, if any, patents will issue or whether any issued patents will not be found invalid and unenforceable or will go unthreatened by third parties. Further, if we encounter delays in regulatory approvals, the period of time during which we could market FX006 or any other product candidate under patent protection could be reduced. Furthermore, patent applications by third parties can result in an interference proceeding in the United States being provoked by a third party or instituted by us to determine who was the first to invent any of the subject matter covered by the patent claims of our applications. See "Business— Patents and Patent Applications" for additional information regarding our material patents and patent applications.

In addition to the protection afforded by patents, we rely on trade secret protection and confidentiality agreements to protect proprietary know-how that is not patentable, processes for which patents are difficult to enforce and any other elements of our drug development process that involve proprietary know-how, information or technology that is not covered by patents. For example, we maintain trade secrets with respect to certain of the formulation and manufacturing techniques related to the TCA-formulated PLGA microspheres in FX006, including those that relate to precise pharmaceutical release. Although we generally require all of our employees to assign their inventions to us, and all of our employees, consultants, advisors and any third parties who have access to our proprietary know-how, information or technology to enter into confidentiality agreements, we cannot provide any assurances that all such agreements have been duly executed or that our trade secrets and other confidential proprietary information will not be disclosed or that competitors will not otherwise gain access to our trade secrets or independently develop substantially equivalent information and techniques. Further, the laws of some foreign countries do not protect proprietary rights to the same extent or in the same manner as the laws of the United States. As a result, we may encounter significant problems in protecting and defending our intellectual property both in the United States and abroad. If we are unable to prevent material disclosure of the non-patented intellectual property related to our technologies to third parties, and there is no guarantee that we will have any such enforceable trade secret protection, we may not be able to establish or maintain a competitive advantage in our market, which could materially adversely affect our business, results of operations and financial condition.

### Third party claims of intellectual property infringement may prevent or delay our development and commercialization efforts.

Our commercial success depends in part on our avoiding infringement of the patents and proprietary rights of third parties. There is a substantial amount of litigation, both within and outside the United States, involving patent and other intellectual property rights in the biotechnology and pharmaceutical industries, including patent infringement lawsuits, interferences, oppositions and inter party reexamination proceedings before the U.S. PTO. Numerous U.S. and foreign issued patents and pending patent applications, which are owned by third parties, exist in the fields in which we and our collaborators are developing product candidates. As the biotechnology and pharmaceutical industries expand and more patents are issued, the risk increases that our product candidates may be subject to claims of infringement of the patent rights of third parties.

Third parties may assert that we are employing their proprietary technology without authorization. There may be third-party patents or patent applications with claims to materials, formulations, methods of manufacture or methods for treatment related to the use or manufacture of FX006 and/or our other product candidates. Because patent applications can take many years to issue, there may be currently pending patent applications which may later result in issued patents that our product candidates may infringe. In addition, third parties may obtain patents in the future and claim that use of our technologies infringes upon these patents. If any third-party patents were held by a court of competent jurisdiction to cover the manufacturing process of any of our product candidates, any drug substance formed during the manufacturing process or any final product itself, the holders of any such patents may be able to block our ability to commercialize such product candidate unless we obtain a license under the applicable patents, or until such patents expire. Similarly, if any third party patent were held by a court of cover aspects of our formulations or methods of use, the holders of any such patent may be able to block our ability to develop and commercialize the applicable product candidate unless we obtain a license or until such patent expires. In either case, such a license may not be available on commercially reasonable terms or at all.

Parties making claims against us may request and/or obtain injunctive or other equitable relief, which could effectively block our ability to further develop and commercialize one or more of our product candidates. Defense of these claims, regardless of their merit, would involve substantial litigation expense and would be a substantial diversion of employee resources from our business. In the event of a successful claim of infringement against us, we may have to pay substantial damages, including treble damages and attorneys' fees for willful infringement, obtain one or more licenses from third parties, pay royalties or redesign our infringing products or

manufacturing processes, which may be impossible or require substantial time and monetary expenditure. We cannot predict whether any such license would be available at all or whether it would be available on commercially reasonable terms. Furthermore, even in the absence of litigation, we may need to obtain licenses from third parties to advance our research, manufacture clinical trial supplies or allow commercialization of our product candidates. We may fail to obtain any of these licenses at a reasonable cost or on reasonable terms, if at all. In that event, we would be unable to further develop and commercialize one or more of our product candidates, which could harm our business significantly. We cannot provide any assurances that third party patents do not exist which might be enforced against our products, resulting in either an injunction prohibiting our sales, or, with respect to our sales, an obligation on our part to pay royalties and/or other forms of compensation to third parties.

## If we fail to comply with our obligations in the agreements under which we license rights to technology from third parties, or if the license agreements are terminated for other reasons, we could lose license rights that are important to our business.

We are a party to a number of technology licenses that are important to our business and expect to enter into additional licenses in the future. For example, our rights to FX007 and FX005 are the subject of separate exclusive license agreements with AstraZeneca. If we fail to comply with our obligations under our agreements with AstraZeneca (including, among other things, if we fail to use commercially reasonable efforts to develop, commercialize and sell products based on FX007 and FX005 in major markets) or our other license agreements, or we are subject to a bankruptcy or insolvency, the licensor may have the right to terminate the license. In addition, under our agreement with AstraZeneca for FX007, AstraZeneca has a right to terminate the agreement in the event of a change of control of us prior to the achievement of a specified development milestone, unless we pay a fee to AstraZeneca. In the event that any of our important technology licenses were to be terminated by the licensor, we would likely cease further development of the related program or be required to spend significant time and resources to modify the program to not use the rights under the terminated license.

### We may be involved in lawsuits to protect or enforce our patents or the patents of our licensors, which could be expensive, time consuming and unsuccessful.

Competitors may infringe our patents or the patents of our licensors. To counter infringement or unauthorized use, we may be required to file infringement claims, which can be expensive and time-consuming. In addition, in an infringement proceeding, a court may decide that a patent of ours or our licensors is not valid or is unenforceable, or may refuse to stop the other party from using the technology at issue on the grounds that our patents do not cover the technology in question. An adverse result in any litigation or defense proceedings could put one or more of our patents at risk of being invalidated or interpreted narrowly and could put our patent applications at risk of not issuing.

Interference proceedings provoked by third parties or brought by us may be necessary to determine the priority of inventions with respect to our patents or patent applications or those of our collaborators or licensors. An unfavorable outcome could require us to cease using the related technology or to attempt to license rights to it from the prevailing party. Our business could be harmed if the prevailing party does not offer us a license on commercially reasonable terms. Our defense of litigation or interference proceedings may fail and, even if successful, may result in substantial costs and distract our management and other employees. We may not be able to prevent, alone or with our licensors, misappropriation of our intellectual property rights, particularly in countries where the laws may not protect those rights as fully as in the United States.

Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation. There could also be public announcements of the results of hearings, motions or other interim proceedings or developments. If securities analysts or investors perceive these results to be negative, it could have a material adverse effect on the price of our common stock.

# Obtaining and maintaining our patent protection depends on compliance with various procedural, document submission, fee payment and other requirements imposed by governmental patent agencies, and our patent protection could be reduced or eliminated for non-compliance with these requirements.

Periodic maintenance fees on any issued patent are due to be paid to the U.S. PTO and foreign patent agencies in several stages over the lifetime of the patent. The U.S. PTO and various foreign governmental patent agencies require compliance with a number of procedural, documentary, fee payment and other similar provisions during the patent application process. While an inadvertent lapse can in many cases be cured by payment of a late fee or by other means in accordance with the applicable rules, there are situations in which non-compliance can result in abandonment or lapse of the patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. Non-compliance events that could result in abandonment or lapse of a patent or patent application include, but are not limited to, failure to respond to official actions within prescribed time limits, non-payment of fees and failure to properly legalize and submit formal documents. If we or our licensors that control the prosecution and maintenance of our licensed patents fail to maintain the patents and patent applications covering our product candidates, our competitors might be able to enter the market, which would have a material adverse effect on our business.

### We may be subject to claims that our employees, consultants or independent contractors have wrongfully used or disclosed confidential information of third parties.

We employ individuals who were previously employed at other biotechnology or pharmaceutical companies. We may be subject to claims that we or our employees, consultants or independent contractors have inadvertently or otherwise used or disclosed confidential information of our employees' former employers or other third parties. We may also be subject to claims that former employers or other third parties have an ownership interest in our patents. Litigation may be necessary to defend against these claims. There is no guarantee of success in defending these claims, and if we are successful, litigation could result in substantial cost and be a distraction to our management and other employees.

#### **Risks Related to Ownership of Our Common Stock**

### The market price of our common stock may be highly volatile, you may not be able to resell your shares at a desired market price and you could lose all or part of your investment.

The trading price of our common stock is likely to be volatile. Our stock price could be subject to wide fluctuations in response to a variety of factors, including the following:

- adverse results or delays in clinical trials;
- inability to obtain additional funding;
- any delay in filing an NDA for any of our product candidates and any adverse development or perceived adverse development with respect to the FDA's review of that NDA;
- failure to successfully develop and commercialize our product candidates;
- changes in laws or regulations applicable to our product candidates;
- inability to obtain adequate product supply for our product candidates, or the inability to do so at acceptable prices;
- adverse regulatory decisions;
- introduction of new products or technologies by our competitors;
- failure to meet or exceed product development or financial projections we provide to the public;
- failure to meet or exceed the estimates and projections of the investment community;
- the perception of the pharmaceutical industry by the public, legislatures, regulators and the investment community;

- announcements of significant acquisitions, strategic partnerships, joint ventures or capital commitments by us or our competitors;
- disputes or other developments relating to proprietary rights, including patents, litigation matters and our ability to obtain patent protection for our technologies;
- additions or departures of key scientific or management personnel;
- significant lawsuits, including patent or stockholder litigation;
- changes in the market valuations of similar companies;
- sales of our common stock by us or our stockholders in the future; and
- trading volume of our common stock.

In addition, the stock market in general, and the Nasdaq Global Market in particular, have experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of these companies. Broad market and industry factors may negatively affect the market price of our common stock, regardless of our actual operating performance.

### Our principal stockholders and management own a significant percentage of our stock and will be able to exert significant control over matters subject to stockholder approval.

As of March 16, 2015, our executive officers, directors and stockholders affiliated with our officers and directors beneficially owned approximately 36.0% of our voting stock. Therefore, these stockholders may have the ability to influence us through this ownership position. These stockholders may be able to determine or significantly influence all matters requiring stockholder approval. For example, these stockholders, acting together, may be able to control or significantly influence elections of directors, amendments of our organizational documents, or approval of any merger, sale of assets, or other major corporate transaction. This may prevent or discourage unsolicited acquisition proposals or offers for our common stock that you may believe are in your best interest as one of our stockholders.

### We are an "emerging growth company," and we cannot be certain if the reduced reporting requirements applicable to emerging growth companies will make our common stock less attractive to investors.

We are an "emerging growth company," as defined in the Jumpstart Our Business Startup Act , or JOBS Act. For as long as we continue to be an emerging growth company, we may take advantage of exemptions from various reporting requirements that are applicable to other public companies that are not "emerging growth companies," including exemption from compliance with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act of 2002, or the Sarbanes-Oxley Act, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements, and exemptions from the requirements of holding a non-binding advisory vote on executive compensation. We will remain an emerging growth company until the earlier of (a) the last day of the fiscal year in which we have total annual gross revenue of at least \$1 billion, (b) December 31, 2019, (c) the date on which we are deemed to be a large accelerated filer, which would occur at the beginning of a year if the market value of our common stock that is held by non-affiliates exceeds \$700 million as of the prior June 30th, and (d) the date on which we have issued more than \$1 billion in non-convertible debt during the prior three-year period.

Even after we no longer qualify as an emerging growth company, we may still qualify as a "smaller reporting company" which would allow us to take advantage of many of the same exemptions from disclosure requirements including exemption from compliance with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act and reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements. We cannot predict if investors will find our common stock less attractive because we may rely on these exemptions. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock and our stock price may be more volatile.

Under the JOBS Act, emerging growth companies can also delay adopting new or revised accounting standards until such time as those standards apply to private companies. We have irrevocably elected not to avail ourselves of this exemption from new or revised accounting standards and, therefore, will be subject to the same new or revised accounting standards as other public companies that are not emerging growth companies.

#### If we fail to maintain an effective system of internal control over financial reporting, we may not be able to accurately report our financial results or prevent fraud. As a result, stockholders could lose confidence in our financial and other public reporting, which would harm our business and the trading price of our common stock.

Effective internal controls over financial reporting are necessary for us to provide reliable financial reports and, together with adequate disclosure controls and procedures, are designed to prevent fraud. Any failure to implement required new or improved controls, or difficulties encountered in their implementation could cause us to fail to meet our reporting obligations. In addition, any testing by us conducted in connection with Section 404 of the Sarbanes-Oxley Act, or the subsequent testing by our independent registered public accounting firm, may reveal deficiencies in our internal controls over financial reporting that are deemed to be material weaknesses or that may require prospective or retroactive changes to our consolidated financial statements or identify other areas for further attention or improvement. Inferior internal controls could also cause investors to lose confidence in our reported financial information, which could have a negative effect on the trading price of our common stock.

### We will continue to incur significant increased costs as a result of operating as a new public company, and our management is required to devote substantial time to new compliance initiatives.

We completed our initial public offering on February 18, 2014. As a new public company, we incur significant legal, accounting and other expenses that we did not incur as a private company. For example, we are now subject to the reporting requirements of the Securities Exchange Act of 1934, as amended, which require, among other things, that we file with the SEC annual, quarterly and current reports with respect to our business and financial condition. We have incurred and will continue to incur costs associated with the preparation and filing of these reports. In addition, the Sarbanes-Oxley Act, as well as rules subsequently implemented by the SEC, and the Nasdaq Global Market have imposed various other requirements on public companies. In July 2010, the Dodd-Frank Wall Street Reform and Consumer Protection Act, or the Dodd-Frank Act, was enacted. There are significant corporate governance and executive compensation related provisions in the Dodd-Frank Act that require the SEC to adopt additional rules and regulations in these areas such as "say on pay" and proxy access. Stockholder activism, the current political environment and the current high level of government intervention and regulatory reform may lead to substantial new regulations and disclosure obligations, which may lead to additional compliance costs and impact (in ways we cannot currently anticipate) the manner in which we operate our business. Our management and other personnel devote a substantial amount of time to these compliance initiatives. Moreover, these rules and regulations have and will continue to increase our legal and financial compliance costs and will make some activities more time-consuming and costly. For example, these rules and regulations have made it more difficult and more expensive for us to obtain director and officer liability insurance and we may be required to incur substantial costs to maintain our current levels of such coverage.

### Sales of a substantial number of shares of our common stock in the public market by our existing stockholders could cause our stock price to fall.

Sales of a substantial number of shares of our common stock in the public market or the perception that these sales might occur, could depress the market price of our common stock and could impair our ability to raise capital through the sale of additional equity securities. We are unable to predict the effect that sales may have on the prevailing market price of our common stock.

Certain holders of our securities are entitled to rights with respect to the registration of their shares under the Securities Act of 1933, as amended, or the Securities Act. Registration of these shares under the Securities Act

would result in the shares becoming freely tradable without restriction under the Securities Act. Any sales of securities by these stockholders could have a material adverse effect on the trading price of our common stock.

# Future sales and issuances of our common stock or rights to purchase common stock, including pursuant to our equity incentive plans, could result in additional dilution of the percentage ownership of our stockholders and could cause our stock price to fall.

We expect that significant additional capital will be needed in the future to continue our planned operations. To the extent we raise additional capital by issuing equity securities, our stockholders may experience substantial dilution. We may sell common stock, convertible securities or other equity securities in one or more transactions at prices and in a manner we determine from time to time. If we sell common stock, convertible securities or other equity securities in more than one transaction, investors may be materially diluted by subsequent sales. These sales may also result in material dilution to our existing stockholders, and new investors could gain rights superior to our existing stockholders.

Pursuant to the 2013 plan, our management is authorized to grant stock options and other equity-based awards to our employees, directors and consultants. The number of shares available for future grant under the 2013 plan will automatically increase each year by 4% of all shares of our capital stock outstanding as of December 31 of the prior calendar year, subject to the ability of our board of directors to take action to reduce the size of the increase in any given year. Currently, we plan to register the increase the number of shares available for issuance under the 2013 plan each year. If our board of directors elects to increase the number of shares available for future grant by the maximum amount each year, our stockholders may experience additional dilution, which could cause our stock price to fall.

#### We are at risk of securities class action litigation.

In the past, securities class action litigation has often been brought against a company following a decline in the market price of its securities. This risk is especially relevant for us because pharmaceutical companies have experienced significant stock price volatility in recent years. If we face such litigation, it could result in substantial costs and a diversion of management's attention and resources, which could harm our business.

#### Our ability to use our net operating loss carryforwards and certain other tax attributes may be limited.

Section 382 of the Internal Revenue Code of 1986, as amended, or Section 382, contains rules that limit the ability of a company that undergoes an ownership change to utilize its net operating losses, or NOLs, and tax credits existing as of the date of such ownership change. Under the rules, such an ownership change is generally any change in ownership of more than 50% of a company's stock within a rolling three-year period. The rules generally operate by focusing on changes in ownership among stockholders considered by the rules as owning, directly or indirectly, 5% or more of the stock of a company and any change in ownership arising from new issuances of stock by the company. During the quarter ended June 30, 2014, we completed a Section 382 study through February 11, 2014. The results of this study showed that as of February 11, 2014, one historical ownership change within the meaning of Section 382 had occurred in 2009. As a result of this Section 382 limitation, approximately \$0.3 million of NOLs will expire unutilized. In addition, the Company recently completed another Section 382 study through December 31, 2014. The results of this study showed that the NOLs will expire due to the Section 382 limitation associated with the ownership change, assuming sufficient future taxable income and no future limitations. Subsequent ownership changes as defined by Section 382 may further limit the amount of NOL carryforwards that could be utilized annually to offset future taxable income.

### We do not intend to pay dividends on our common stock so any returns will be limited to the value of our stock.

We have never declared or paid any cash dividend on our common stock. We currently anticipate that we will retain future earnings for the development, operation and expansion of our business and do not anticipate

declaring or paying any cash dividends for the foreseeable future. Additionally, our credit and security agreement with MidCap contains covenants that restrict our ability to pay dividends. Any return to stockholders will therefore be limited to the appreciation of their stock.

Provisions in our amended and restated certificate of incorporation and bylaws, as well as provisions of Delaware law, could make it more difficult for a third party to acquire us or increase the cost of acquiring us, even if doing so would benefit our stockholders, and may prevent or frustrate attempts by our stockholders to replace or remove our current management.

Some provisions of our charter documents and Delaware law may have anti-takeover effects that could discourage an acquisition of us by others, even if an acquisition would be beneficial to our stockholders, and may prevent attempts by our stockholders to replace or remove our current management. These provisions include:

- authorizing the issuance of "blank check" preferred stock, the terms of which may be established and shares of which may be issued without stockholder approval;
- limiting the removal of directors by the stockholders;
- creating a staggered board of directors;
- prohibiting stockholder action by written consent, thereby requiring all stockholder actions to be taken at a meeting of our stockholders;
- eliminating the ability of stockholders to call a special meeting of stockholders; and
- establishing advance notice requirements for nominations for election to the board of directors or for proposing matters that can be acted upon at stockholder meetings.

These provisions may frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace members of our board of directors, which is responsible for appointing the members of our management. In addition, we are subject to Section 203 of the Delaware General Corporation Law, which generally prohibits a Delaware corporation from engaging in any of a broad range of business combinations with an interested stockholder of such corporation for a period of three years following the date on which the stockholder became an interested stockholder, unless such transactions are approved by our board of directors. This provision could have the effect of delaying or preventing a change of control, whether or not it is desired by or beneficial to our stockholders. Further, other provisions of Delaware law may also discourage, delay or prevent someone from acquiring us or merging with us.

#### Item 1B. Unresolved Staff Comments

Not applicable.

#### **Item 2. Properties**

Our offices are located in Burlington, MA at one leased, 11,754 square-foot facility used primarily for corporate functions. The lease expires in October 2016. With our increased headcount and future growth plans we will seek to add additional space in the near future.

#### **Item 3. Legal Proceedings**

We are not currently a party to any material legal proceedings.

#### 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

#### **Market Information**

Our common stock began trading on the Nasdaq Global Market on February 12, 2014 and trades under the symbol "FLXN". Prior to February 12, 2014, there was no public market for our common stock. The following table sets forth the high and low sales prices per share of our common stock as reported on The NASDAQ Global Market for the periods indicated.

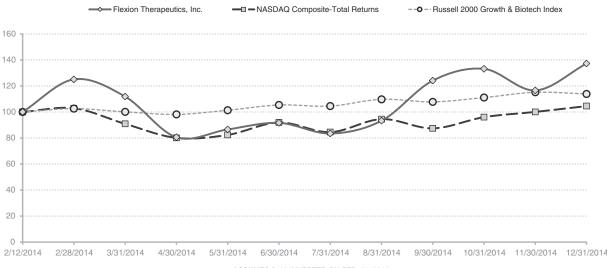
Year Ended December 31, 2014	High	Low
First Quarter (beginning February 12, 2014)	\$20.85	\$14.05
Second Quarter	\$18.23	\$11.06
Third Quarter	\$21.23	\$11.71
Fourth Quarter	\$23.64	\$14.50

On March 16, 2015, the last reported sale price of our common stock was \$26.14.

#### **Comparative Stock Performance Graph**

The following performance graph and related information shall not be deemed "soliciting material" or to be "filed" with the SEC, nor shall such information be incorporated by reference into any future filing under the Securities Act or Exchange Act, except to the extent that we specifically incorporate it by reference into such filing.

The following graph shows a comparison from February 12, 2014 (the date our common stock commenced trading on The NASDAQ Global Market) through December 31, 2014 of the cumulative total return for our common stock, the Russell 2000 Growth and Biotech index and the NASDAQ Composite Index (CCMP). The graph assumes an initial investment of \$100 on February 12, 2014. The comparisons in the graph are not intended to forecast or be indicative of possible future performance of our common stock.



#### Comparison of 11 Month Cumulative Total Return

ASSUMES \$100 INVESTED ON FEB. 12, 2014 ASSUMES DIVIDEND REINVESTED FISCAL YEAR ENDING DEC.31, 2014

#### **Holders of Record**

As of March 16, 2015, there were approximately 24 stockholders of record of our common stock. Certain shares are held in "street" name and accordingly, the number of beneficial owners of such shares is not known or included in the foregoing number.

#### **Dividend Policy**

We have never declared or paid any cash dividends on our capital stock. We currently intend to retain all available funds and any future earnings to support our operations and finance the growth and development of our business. We do not intend to pay cash dividends on our common stock for the foreseeable future. In addition, pursuant to our credit and security agreement with MidCap, we are prohibited from paying cash dividends without the prior consent of MidCap. Any future determination related to our dividend policy will be made at the discretion of our board of directors and will depend upon, among other factors, our results of operations, financial condition, capital requirements, contractual restrictions, business prospects and other factors our board of directors may deem relevant.

#### Securities Authorized for Issuance under Equity Compensation Plans

Information about our equity compensation plans is incorporated herein by reference to Item 12 of Part III of this Annual Report.

#### Item 6. Selected Financial Data

The following selected financial data should be read together with "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and related notes included elsewhere in this Annual Report. The selected consolidated financial data in this section are not intended to replace our consolidated financial statements and the related notes. Our historical results are not necessarily indicative of the results that may be expected in the future and results of interim periods are not necessarily indicative of the results for the entire year.

The selected consolidated statement of operations data for the years ended December 31, 2014, 2013, 2012, and 2011 and the selected consolidated balance sheet data as of December 31, 2014 and 2013 are derived from our audited consolidated financial statements appearing elsewhere in this Annual Report. The selected consolidated financial data for all periods presented reflects the 1-for-8.13 reverse stock split we effected on January 27, 2014.

		Year I Decem		
	2014	2013	2012	2011
		(in thou	sands)	
Consolidated Statement of Operations Data: Revenue	\$ —	\$ —	\$ —	\$ —
Operating expenses: Research and development General and administrative	17,923 9,064	11,061 6,704	11,065 3,947	8,241 3,047
Total operating expenses	26,987	17,765	15,012	11,288
Loss from operations	(26,987)	(17,765)	(15,012)	(11,288)
Other income (expense): Interest income Interest expense Other income (expense), net Total other income (expense) Net loss Net loss attributable to common stockholders Net loss per share attributable to common stockholders, basic and diluted <sup>(1)</sup>	$ \begin{array}{r}     479 \\     (401) \\     (404) \\ \hline     (326) \\     \underbrace{\$(27,313)} \\     \underbrace{\$(27,313)} \\     \underbrace{\$(1.97)} \\ \end{array} $	$ \begin{array}{r} 234 \\ (449) \\ (207) \\ \hline (422) \\ \$(18,187) \\ \hline \$(18,187) \\ \hline \$(18,187) \\ \hline \$(23.02) \end{array} $	$ \begin{array}{r}     194 \\     \hline     (164) \\     \overline{30} \\     \$(14,982) \\     \hline     \$(14,982) \\     \hline     \$(14,982) \\     \hline     \$(14,982) \\     \hline     \$(27.58) \end{array} $	$ \begin{array}{r}     173 \\     \hline     (332) \\     \hline     (159) \\     \underbrace{\$(11,447)} \\     \hline     \underbrace{\$(11,447)} \\     \underbrace{\$(23.26)} \end{array} $
Weighted average common shares outstanding, basic and diluted <sup>(1)</sup>	13,894	790	543	492
	2014	2013	2012	2011
		(in thou	sands)	
Consolidated Balance Sheet Data:         Cash, cash equivalents and marketable securities         Working capital <sup>(2)</sup> Total assets         Total debt <sup>(3)</sup> Convertible preferred stock         Total stockholders' equity (deficit)	\$151,625 145,328 153,377 3,593  144,942	\$ 16,438 11,583 18,776 5,047 74,806 (64,704)	\$ 29,383 27,147 30,008  74,806 (47,523)	\$ 10,542 9,024 10,939  41,836 (32,682)

(1) See Note 3 to our consolidated financial statements appearing elsewhere in this Annual Report for further details on the calculation of basic and diluted net loss per share attributable to common stockholders.

(2) We define working capital as current assets less current liabilities.

(3) Total debt includes the current and long-term portion of our debt.

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

The following discussion and analysis of financial condition and results of operations should be read in conjunction with "Item 6. Selected Financial Data" and our consolidated financial statements and related notes appearing elsewhere in this Annual Report. This discussion and analysis and other parts of this Annual Report contain forward-looking statements based upon current beliefs, plans and expectations that involve risks, uncertainties and assumptions, such as statements regarding our plans, objectives, expectations, intentions and projections. Our actual results and the timing of selected events could differ materially from those anticipated in these forward-looking statements as a result of several factors, including those set forth under "Item 1A. Risk Factors". You should carefully read the "Risk Factors" section of this Annual Report to gain an understanding of the important factors that could cause actual results to differ materially from our forward-looking statements. Please also see the section entitled "Special Note Regarding Forward-Looking Statements."

# Overview

We are a specialty pharmaceutical company focused on the development and commercialization of novel, injectable pain therapies. We are targeting anti-inflammatory and analgesic therapies for the treatment of patients with musculoskeletal conditions, beginning with osteoarthritis, a type of degenerative arthritis, referred to as OA. Our broad and diversified portfolio of product candidates addresses the OA pain treatment spectrum, from moderate to severe pain, and provides us with multiple unique opportunities to achieve our goal of commercializing novel, patient-focused pain therapies. Our pipeline consists of three proprietary product candidates: FX006, a sustained-release, intra-articular steroid; FX007, a TrkA receptor antagonist for post-operative pain; and FX005, a sustained-release intra-articular p38 MAP kinase inhibitor. We retain the exclusive worldwide rights to our product candidates.

We were incorporated in Delaware in November 2007, and to date we have devoted substantially all of our resources to our development efforts relating to our product candidates, including conducting clinical trials with our product candidates, providing general and administrative support for these operations and protecting our intellectual property. We do not have any products approved for sale and have not generated any revenue from product sales. From our inception through December 31, 2014, we have funded our operations primarily through the sale of our common stock and convertible preferred stock and, to a lesser extent, debt financing. From our inception through December 31, 2014, we have raised \$244.4 million from such transactions, including from our initial and follow-on public offerings. Until such time, if ever, as we can generate substantial product revenue, we expect to finance our cash needs through a combination of equity offerings, debt financings, government or third-party funding, and licensing or collaboration arrangements.

We have incurred net losses in each year since our inception in 2007. Our net losses were \$27.3 million, \$18.2 million, and \$15.0 million for the years ended December 31, 2014, 2013 and 2012, respectively. As of December 31, 2014, we had an accumulated deficit of \$93.5 million. Substantially all of our net losses resulted from costs incurred in connection with our development programs and from general and administrative expenses associated with our operations.

We expect to continue to incur significant expenses and increasing operating losses for the foreseeable future. We anticipate that our expenses will increase substantially in connection with our ongoing activities, as we:

- continue the development of our lead product candidate, FX006, including our on-going and future clinical trials;
- seek to obtain regulatory approvals for FX006;
- continue to scale-up manufacturing activities including the supply of clinical trial materials and registration batches;
- prepare for the potential launch and commercialization of FX006, if approved;

- establish a sales and marketing infrastructure for the commercialization of FX006, if approved;
- expand our development activities and advance additional product candidates;
- · maintain, expand and protect our intellectual property portfolio; and
- add operational, financial and management information systems and personnel, including personnel to support our product development and commercialization efforts and operations as a public company.

We do not expect to generate revenue from product sales unless and until we successfully complete development and obtain marketing approval for one or more of our product candidates, which we expect will take a number of years and is subject to significant uncertainty. Accordingly, we anticipate that we will need to raise additional capital prior to commercialization of FX006 and completing clinical development of any of our other product candidates. Until such time that we can generate substantial revenue from product sales, if ever, we expect to finance our operating activities through a combination of equity offerings, debt financings, government or other third-party funding and collaborations, and licensing arrangements. However, we may be unable to raise additional funds or enter into such arrangements when needed on favorable terms, or at all, which would have a negative impact on our financial condition and could force us to delay, limit, reduce or terminate our development programs or commercialization efforts or grant to others, rights to develop or market product candidates that we would otherwise prefer to develop and market ourselves. Failure to receive additional funding could cause us to cease operations, in part or in full.

## **Financial Overview**

# Revenue

We have not generated any revenue since our inception. We do not have any products approved for sale, and we do not expect to generate any revenue from the sale of products in the near future. In the future, if our research and development efforts result in clinical success and regulatory approval, we may generate revenue from the sales of our product candidates, or we may generate revenue from grant income or from licensing rights to our product candidates to third parties. If we fail to complete the development of FX006 or our other product candidates, our ability to generate future revenue, and our results of operations and financial position will be adversely affected.

## **Operating Expenses**

The majority of our operating expenses to date have been related to in-licensing certain of our product candidates and the development activities of FX006, FX005, and FX007.

## **Research and Development Expenses.**

Since our inception, we have focused our resources on our development activities, including: preclinical studies, clinical trials and chemistry manufacturing and controls, or CMC. Our development expenses consist primarily of:

- expenses incurred under agreements with consultants, contract research organizations, or CROs, and investigative sites that conduct our preclinical studies and clinical trials;
- costs of acquiring, developing and manufacturing clinical trial materials;
- personnel costs, including salaries, benefits, stock-based compensation and travel expenses for employees engaged in scientific research and development functions;
- costs related to compliance with regulatory requirements;
- · expenses related to the in-license of certain technologies from pharmaceutical companies; and
- allocated expenses for rent and maintenance of facilities, insurance and other general overhead.

We expense research and development costs as incurred. Our direct research and development expenses consist primarily of external-based costs, such as fees paid to investigators, consultants, investigative sites, CROs and companies that manufacture our clinical trial materials, and are tracked on a program-by-program basis. We do not allocate personnel costs, facilities or other indirect expenses to specific research and development programs. These indirect expenses are included within the amounts designated as "Personnel and other costs" in the table below.

The following table summarizes our research and development expenses for the periods presented:

	Year Ended December 31,			
	2014 2013		2012	
		(in thousands)		
Direct research and development expenses by program:				
FX006	\$11,627	\$ 5,593	\$ 6,365	
FX007	738	370	52	
FX005	211	1,659	2,074	
Total direct research and development expenses	12,576	7,622	8,491	
Personnel and other costs	5,347	3,439	2,574	
Total research and development expenses	\$17,923	\$11,061	\$11,065	

Our research and development expenses are expected to increase in the foreseeable future. Specifically, our costs associated with FX006 will increase as we conduct our pivotal Phase 2b and Phase 3 clinical trials and otherwise advance our FX006 development program. We cannot determine with certainty the duration of and completion costs associated with future clinical trials of FX006. The duration, costs and timing associated with the development and commercialization of FX006 and our other product candidates will depend on a variety of factors, including uncertainties associated with the results of our clinical trials and our ability to obtain regulatory approval. As it relates to FX005 and FX007, we will decide upon which development programs to pursue and how much funding to direct to each program on an ongoing basis in response to preclinical and clinical success of each product candidate, as well as ongoing assessments of the commercial potential of each product candidate. As a result of these uncertainties, we are currently unable to estimate with any precision our future research and development expenses for any product candidate, when or if we will achieve regulatory approval, generate revenue from sales of any product candidate or achieve a positive cash flow position.

#### General and Administrative Expenses.

General and administrative expenses consist primarily of personnel costs, including salaries, related benefits, travel expenses and stock-based compensation of our executive, finance, business development, information technology, legal and human resources functions. Other general and administrative expenses include an allocation of facility-related costs, patent filing expenses, and professional fees for legal, consulting, auditing and tax services.

We anticipate that our general and administrative expenses will increase in the future as we continue to build our corporate infrastructure to support the continued development of our product candidates. Additionally, we anticipate increased expenses related to the audit, legal, regulatory, investor relations and tax-related services associated with maintaining compliance with the Securities and Exchange Commission and Nasdaq requirements, director and officer insurance premiums and other costs associated with operating as a publiclytraded company.

#### Other Income (Expense)

*Interest income.* Interest income consists of interest earned on our cash and cash equivalents balances and our marketable securities. The primary objective of our investment policy is capital preservation.

*Interest expense.* In January 2013, we borrowed \$5.0 million under a credit facility with MidCap Financial SBIC, LP, or MidCap, and began to incur interest related to this borrowing at a fixed rate of 8.0% per annum. We expect to incur future interest expense related to this borrowing until September 1, 2016. See "Liquidity and Capital Resources" for a more detailed description of our credit facility.

*Other expense.* Other expense consists of the net amortization of premiums related to our marketable securities, and our realized gains (losses) on redemptions of our marketable securities. We will continue to incur expenses related to net amortization of premiums on marketable securities for as long as we hold these investments.

## **Income Taxes**

As of December 31, 2014, we had \$45.7 million and \$41.5 million of federal and state net operating loss carryforwards, respectively, and \$2.1 million and \$1.6 million of federal and state research and development tax credit carryforwards, respectively, available to offset our future taxable income, if any. These federal net operating loss carryforwards and research and development tax credit carryforwards expire at various dates beginning in 2029, if not utilized and are subject to review and possible adjustment by the Internal Revenue Service. The state net operating loss carryforwards and research and development tax credit carryforwards expire at various dates beginning in 2030 and 2025, respectively, if not utilized and are subject to review and possible adjustment by the state tax authorities. At December 31, 2014, a full valuation allowance was recorded against our net operating loss carryforwards and our research and development tax credit carryforwards.

If we experience a greater than 50 percent aggregate change in ownership of certain stockholders over a three-year period, utilization of our then-existing net operating loss carryforwards and research and development tax credit carryforwards will be subject to an annual limitation.

## Critical Accounting Policies and Significant Judgments and Estimates

Our management's discussion and analysis of our financial condition and results of operations is based on our financial statements, which we have prepared in accordance with generally accepted accounting principles in the United States, or GAAP. The preparation of our consolidated financial statements requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of our financial statements, including those described below, on an ongoing basis. We base our estimates on historical experience, known trends and events, contractual milestones and various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

While our significant accounting policies are more fully described in Note 3 to our consolidated financial statements appearing elsewhere in this Form 10-K, we believe that the estimates and assumptions involved in the following accounting policies may have the greatest potential impact on our financial statements and, therefore, consider these to be critical for fully understanding and evaluating our financial condition and results of operations.

### **Research and Development Costs**

As part of the process of preparing our financial statements, we are required to estimate our accrued and third-party prepaid research and development expenses. We base our accrued expenses related to clinical trials on

estimates of patient enrollment and related expenses at clinical investigator sites, as well as estimates for services received and efforts expended pursuant to contracts with multiple research institutions and CROs that conduct and manage clinical trials on our behalf. We review new and open contracts and communicate with applicable internal and vendor personnel to identify services that have been performed on our behalf and estimate the level of service performed and the associated costs incurred for the service when we have not yet been invoiced or otherwise notified of the actual cost for accrued expenses. The majority of our service providers invoice us monthly in arrears for services performed; however, some require advanced payments. For any services that require such advanced payments, we perform a review, with applicable internal and vendor personnel, to estimate the level of services that have been performed and the associated costs that have been incurred at each reporting period. We accrue expenses related to clinical trials based on contractual amounts applied to the level of patient enrollment and activity according to the protocol. We make estimates of our accrued and prepaid expenses as of each balance sheet date in our financial statements based on facts and circumstances known to us. If timelines or contracts are modified based upon changes in the clinical trial protocol or scope of work to be performed, we modify our estimates of accrued expenses accordingly on a prospective basis. If we do not identify costs that we have begun to incur, or if we underestimate or overestimate the level of services performed or the costs of these services, our actual expenses could differ from our estimates. To date, we have not adjusted our estimates at any particular balance sheet date in any material amount.

## Stock-Based Compensation

We measure stock-based awards granted to employees and directors at fair value on the date of the grant and recognize the corresponding compensation expense for those awards, net of estimated forfeitures, over the requisite service period, which is generally the vesting period of the respective award, using the straight-line method. We measure stock-based awards granted to non-employees for services received based on the fair value of the equity instrument issued. The measurement date of the fair value of the equity instrument issued to non-employees is the earlier of the date on which the counterparty's performance is complete or the date on which there is a commitment to perform.

The fair value of each stock-based award granted is estimated using the Black-Scholes option-pricing model. Until February 11, 2014, we were a private company and we lacked company-specific historical and implied volatility information. Therefore, we estimated our expected stock volatility based on the historical volatility of our publicly-traded peer companies for periods that are commensurate with the expected term (in years) of our stock-based awards, and we expect to continue to do so until such time as we have adequate historical data regarding the volatility of our traded stock price. The expected term of our stock options has been determined utilizing the "simplified" method for awards that qualify as "plain vanilla" options. The expected term of stock options granted to non-employees is equal to the contractual term of the option award. The risk-free interest rate is determined by reference to the U.S. Treasury yield curve in effect at the time of grant of the award for time periods approximately equal to the expected term of the award. Expected dividend yield is based on the fact that we have never paid cash dividends and do not expect to pay any cash dividends in the foreseeable future. The assumptions used to determine the fair value of stock-based awards using the Black-Scholes option-pricing model were as follows:

	Year Ended December 31,		
	2014	2013	2012
Risk-free interest rate	1.54-2.04%	1.00%	0.93%
Dividend yield	0%	0%	0%
Expected term (in years)	6.0	6.0	6.1
Expected volatility	61.9-68.0%	71%	71%

We recognize compensation expense only for the portion of awards that are expected to vest. In developing a forfeiture rate estimate, we have considered our historical experience to estimate pre-vesting forfeitures for service-based awards. The impact of a forfeiture rate adjustment will be recognized in full in the period of

adjustment, and if the actual forfeiture rate is materially different from our estimate, we may be required to record adjustments to stock-based compensation expense in future periods. These assumptions represent our best estimates, but involve inherent uncertainties and the application of our judgment. As a result, if factors change and we use significantly different assumptions or estimates, our stock-based compensation expense could be materially different.

## **RESULTS OF OPERATIONS**

## Year Ended December 31, 2014 Compared to Year Ended December 31, 2013

The following table summarizes our results of operations for the years ended December 31, 2014 and 2013 (certain items may not foot due to rounding):

	Year Ended December 31,			
	2014	2013	Change	
	(	in thousands)		
Revenue	\$ —	\$ —	\$ —	
Operating expenses:				
Research and development	17,923	11,061	6,862	
General and administrative	9,064	6,704	2,360	
Total operating expenses	26,987	17,765	9,222	
Loss from operations	(26,987)	(17,765)	(9,222)	
Other income (expense):				
Interest income	479	234	245	
Interest expense	(401)	(449)	48	
Other expense	(404)	(207)	(197)	
Total other income (expense)	(326)	(422)	96	
Net loss	\$(27,313)	\$(18,187)	\$(9,126)	

## **Research and Development Expenses**

	Year Ended December 31,			
	2014	2014 2013		
		(in thousands)		
Direct research and development expenses by program:				
FX006	\$11,627	\$ 5,593	\$ 6,034	
FX007	738	370	368	
FX005	211	1,659	(1,448)	
Total direct research and development expenses	12,576	7,622	4,954	
Personnel and other costs	5,347	3,439	1,908	
Total research and development expenses	\$17,923	\$11,061	\$ 6,862	

Research and development expenses were \$17.9 million and \$11.1 million for the years ended December 31, 2014 and 2013, respectively. The increase of \$6.9 million was primarily due to \$6.0 million in development expense related to our FX006 program, \$0.4 million related to our FX007 program, as well as, an increase of \$1.9 million in personnel and other costs, offset by a decrease of \$1.4 million in development expenses related to our FX005 program. The increase of \$6.0 million in the FX006 program expenses related to costs associated with our pivotal Phase 2b clinical trial and material costs related to this trial, as well as, start-up costs for the Phase 3 clinical trial. The increase of \$1.9 million in personnel and other costs, including stock compensation and consulting expenses, primarily related to an increase in headcount. The decrease of \$1.4 million in FX005 program expenses was due to the completion of toxicology and pharmacology studies in 2013. The increase of \$0.4 million in FX007 program expenses was due to an increase in preclinical studies.

#### General and Administrative Expenses

General and administrative expenses were \$9.1 million and \$6.7 million for the years ended December 31, 2014 and 2013, respectively. The increase in general and administrative expenses year over year of \$2.4 million, was primarily due to \$1.9 million in salary and related costs due to an increase in headcount to augment our corporate infrastructure, an increase in stock compensation expense as compared to the prior year, and \$0.5 million in insurance costs due to becoming a publicly-traded company.

## **Other Income (Expense)**

Interest income was \$0.5 million and \$0.2 million for the years ended December 31, 2014 and 2013, respectively. Interest income increased due to an increase in marketable securities in our portfolio.

Interest expense was \$0.4 million and \$0.4 million for the years ended December 31, 2014 and 2013, respectively. Interest expense associated with the MidCap loan was consistent year over year.

Other expense was \$0.4 million and \$0.2 million for the years ended December 31, 2014 and 2013, respectively. Other expense increased due to a net amortization of premiums on marketable securities.

## Year Ended December 31, 2013 Compared to Year Ended December 31, 2012

The following table summarizes our results of operations for the years ended December 31, 2013 and 2012 (certain items may not foot due to rounding):

	Year Ended December 31,		
	2013	2012	Change
	(	in thousands)	
Revenue	\$ —	\$ —	\$ —
Operating expenses:			
Research and development	11,061	11,065	(4)
General and administrative	6,704	3,947	2,757
Total operating expenses	17,765	15,012	2,753
Loss from operations	(17,765)	(15,012)	(2,753)
Other income (expense):			
Interest income	234	194	40
Interest expense	(449)		(449)
Other expense	(207)	(164)	(43)
Total other income (expense)	(422)	30	(452)
Net loss	\$(18,187)	\$(14,982)	\$(3,205)

#### **Research and Development Expenses**

	Year Ended December 31,			
	2013	2012	Change	
	(in thousands)			
Direct research and development expenses by program:				
FX006	\$ 5,593	\$ 6,365	\$(772)	
FX007	370	52	318	
FX005	1,659	2,074	(415)	
Total direct research and development expenses	7,622	8,491	(869)	
Personnel and other costs	3,439	2,574	865	
Total research and development expenses	\$11,061	\$11,065	\$ (4)	

Research and development expenses were \$11.1 million and \$11.1 million for the years ended December 31, 2013 and 2012, respectively. The lack of any significant change in research and development expenses year over year was primarily due to an increase of \$0.3 million in development costs related to our FX007 program and an increase of \$0.9 million in personnel and other costs, both offset by a decrease in development expenses related to our FX006 and FX005 programs. The increase of \$0.3 million in FX007 program expenses related to a non-clinical toxicology study and material costs related to this study. The increase of \$0.9 million in personnel and other costs primarily related to an increase in headcount, stock compensation expense and consulting costs. The decrease of \$0.8 million in FX006 program expenses was due to the completion of the Phase 2b clinical trial and toxicology studies partially offset by an increase in manufacturing expenses. The decrease of \$0.4 million in FX005 program expenses was due to the completion of the Phase 2a clinical trial partially offset by an increase in toxicology studies.

## General and Administrative Expenses

General and administrative expenses were \$6.7 million and \$3.9 million for the years ended December 31, 2013 and 2012, respectively. The increase in general and administrative expenses year over year of \$2.8 million, was primarily due to \$1.6 million in salary and related costs from an increase in headcount, \$0.6 million in legal fees related to corporate legal activity and patents for our intellectual property and \$0.6 million in professional fees.

### Other Income (Expense)

Interest income was \$0.2 million and \$0.2 million for the years ended December 31, 2013 and 2012, respectively. Interest income was consistent year over year.

Interest expense was \$0.4 million and \$0.0 million for the years ended December 31, 2013 and 2012, respectively. The increase of \$0.4 million was due to the interest incurred on \$5.0 million of borrowings under our credit facility, which we obtained in January 2013.

Other expense was \$0.2 million and \$0.2 million for the years ended December 31, 2013 and 2012, respectively. Other expense was consistent year over year.

### Liquidity and Capital Resources

To date, we have not generated any revenue and have incurred losses since our inception in 2007. As of December 31, 2014, we had an accumulated deficit of \$93.5 million. We anticipate that we will continue to incur losses for the foreseeable future. We expect that our research and development and general and administrative expenses will continue to increase and, as a result, we will need additional capital to fund our operations, which we may seek to obtain through one or more equity offerings, debt financings, government or other third-party funding, and licensing or collaboration arrangements.

Since our inception through February 2014, we have funded our operations through the receipt of funds from the private placement of \$80.0 million of equity and debt securities. On February 18, 2014, we completed the initial public offering of our common stock, which resulted in net proceeds to us of approximately \$67.2 million, after deducting underwriting discounts, commissions and offering costs. An additional follow-on offering of our common stock was completed on December 17, 2014, which resulted in net proceeds to us of approximately \$92.2 million after deducting underwriting discounts, commissions, and offering costs paid by the Company. As of December 31, 2014, we had cash and cash equivalents of \$103.1 million and marketable securities of \$48.5 million.

We anticipate that our existing cash, cash equivalents and marketable securities will fund our operations for at least the next twelve months. Cash in excess of immediate requirements is invested in accordance with our investment policy, primarily with a view to capital preservation.

The following table shows a summary of our cash flows for each of the years ended December 31, 2014, 2013 and 2012:

	Year Ended December 31,		
	2014	2013	2012
		(in thousands)	
Cash flows used in operating activities	\$(23,145)	\$(16,187)	\$(13,980)
Cash flows provided by (used in) investing activities	(49,451)	15,641	(9,534)
Cash flows provided by financing activities	159,505	3,899	32,992
Net increase (decrease) in cash and cash equivalents	\$ 86,909	\$ 3,353	\$ 9,478

### Net Cash Used in Operating Activities

Operating activities used \$23.1 million of cash in 2014. The cash used in operating activities resulted primarily from our net loss of \$27.3 million for the period, offset by non-cash charges of \$3.0 million and cash provided by changes in our operating assets and liabilities of \$1.2 million. Our non-cash charges consisted of \$0.5 million related to depreciation expense and amortization of premiums on marketable securities and \$2.5 million of stock-based compensation expense. Net cash provided by changes in our operating assets and liabilities consisted primarily of a \$0.5 million increase in our accounts payable and a \$1.0 million increase in accrued expenses and other current liabilities, offset by a \$0.3 million increase in our prepaid expenses and other current liabilities was primarily due to the timing of our payments to manufacturers, CROs and legal counsel. The \$1.0 million increase in accrued expenses and other current liabilities was primarily attributable to higher clinical research and contract manufacturing expenses. The increase in other current assets was primarily due to higher prepaid insurance costs due to becoming a publicly-traded company.

Operating activities used \$16.2 million of cash in 2013. The cash used in operating activities resulted primarily from our net loss of \$18.2 million for the period, offset by non-cash charges of \$1.3 million and cash provided by changes in our operating assets and liabilities of \$0.7 million. Our non-cash charges consisted of \$0.2 million related to depreciation expense and amortization of premiums on marketable securities and \$1.0 million of stock-based compensation expense. Net cash provided by changes in our operating assets and liabilities consisted primarily of a \$0.5 million increase in our accounts payable and a \$0.3 million decrease in our prepaid expenses and other current assets partially offset by a \$0.1 million decrease in accrued expenses and other current liabilities. The increase in accounts payable was primarily due to the timing of our payments to manufacturers, CROs and legal counsel. The decrease in prepaid expenses and other current assets was primarily due to a \$0.1 million decrease in prepaid patent application fees for FX006, which were expensed in 2013 when the applications were filed, a \$0.1 million reduction in interest receivable on our marketable securities, which decreased during the period, a decrease in prepaid expenses related to the conclusion of the Phase 2b doseranging clinical trial of FX006 and the refund of a security deposit resulting from our office relocation. The \$0.1

million decrease in accrued expenses and other current liabilities was primarily attributable to a decrease of expenses related to clinical research and contract manufacturing expenses.

Operating activities used \$14.0 million of cash in 2012. The cash used in operating activities resulted primarily from our net loss of \$15.0 million for the year, offset by non-cash charges of \$0.3 million and net cash provided by changes in our operating assets and liabilities of \$0.7 million. Our non-cash charges consisted of \$0.2 million related to depreciation expense and amortization of premiums on marketable securities and \$0.1 million of stock-based compensation expense. Net cash provided by changes in our operating assets and liabilities consisted primarily of a \$1.1 million increase in our accrued expenses and other current liabilities, partially offset by a \$0.2 million increase in prepaid expenses and other current liabilities was primarily attributable to the increase in expenses related to clinical research and contract manufacturing services. The increase in our prepaid expenses and other current filings. The decrease in our accounts payable was primarily due to the timing of our payments to manufacturers and CROs.

## Net Cash Provided by (Used in) Investing Activities

Net cash used in investing activities was \$49.5 million in the year ended December 31, 2014. Net cash used in investing activities in the year ended December 31, 2014 consisted primarily of cash paid to purchase marketable securities of \$79.4 million and to purchase property and equipment of \$0.8 million, offset by cash received from the redemption of marketable securities of \$30.7 million.

Net cash provided by investing activities was \$15.6 million in the year ended December 31, 2013. Net cash provided by investing activities in the year ended December 31, 2013 consisted primarily of cash received from the redemption of marketable securities of \$31.2 million, partially offset by cash used for the purchase of marketable securities of \$15.0 million and to purchase property and equipment of \$0.4 million.

Net cash used in investing activities was \$9.5 million for the year ended December 31, 2012. Net cash used in investing activities consisted primarily of cash paid to purchase marketable securities of \$28.5 million, partially offset by cash received from the redemption of marketable securities of \$19.0 million.

#### Net Cash Provided by Financing Activities

Net cash provided by financing activities was \$159.5 million, \$3.9 million and \$33.0 million in the years ended December 31, 2014, 2013 and 2012, respectively. Net cash provided by financing activities in the year ended December 31, 2014 consisted of \$162.1 million in proceeds from public offerings of our common stock and \$0.3 million from the exercise of stock options, partially offset by the payment of fees incurred in connection with our initial public offering and follow-on financing of \$1.5 million and debt payments of \$1.5 million.

Net cash provided by financing activities in the year ended December 31, 2013 consisted of \$5.0 million in proceeds from borrowings under our term loan, partially offset by the payment of fees incurred in connection with our initial public offering of \$1.1 million.

Net cash provided by financing activities in the year ended December 31, 2012 primarily consisted of \$13.1 million received from the sale of Series A preferred stock net of issuance costs and \$19.9 million received from the sale of Series B preferred stock net of issuance costs.

#### Contractual Obligations

The following table discloses aggregate information about our contractual obligations and the periods in which payments are due as of December 31, 2014:

	<b>Payments Due By Period</b>				
	Total	Less Than 1 Year	1 – 3 Years	3 – 5 Years	More Than 5 Years
		(in 1	thousands)		
Long-term debt obligation (including interest) <sup>(1)</sup>	\$3,593	\$2,000	\$1,593	\$—	\$—
Operating lease obligations <sup>(2)</sup>	534	290	244		
Total <sup>(3)</sup>	\$4,127	\$2,290	\$1,837	<u>\$</u>	<u>\$</u>

- Represents the contractually required principal and interest payments on our credit facility in accordance with the required payment schedule and the \$175,000 final payment to the lender on September 1, 2016. Amounts associated with future interest payments to be made were calculated using the fixed interest rate of 8.0% per annum.
- (2) Represents the contractually required payments under our operating lease obligations in existence as of December 31, 2014 in accordance with the required payment schedule. No assumptions were made with respect to renewing the lease terms at the expiration date of their initial terms.
- (3) Milestone payments of up to \$184.0 million will become due under our agreements with AstraZeneca as we achieve regulatory and commercial milestones. In addition, we will pay tiered royalties on product sales. We have not included these amounts in this table as we cannot estimate or predict when, or if, those amounts will become due.

The table above reflects only payment obligations that are fixed or determinable. We enter into contracts in the normal course of business with CROs for clinical trials, with contract manufacturers for clinical supply manufacturing, and with vendors for preclinical research studies, research supplies and other services and products for operating purposes. These contracts generally provide for termination on notice, and therefore we believe that our non-cancelable obligations under these agreements are not material.

## **Off-Balance Sheet Arrangements**

During the periods presented, we did not have, nor do we currently have, any off-balance sheet arrangements that are reasonably likely to have a current or future material effect on our financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources.

## **Recent Accounting Pronouncements**

In June 2014, the Financial Accounting Standard Board, or FASB, issued amended accounting guidance for development stage entities. The amendment eliminates certain financial reporting requirements for development stage entities, specifically, the presentation of inception-to-date information, the development stage entity label on the financial statements, the description of the activities in which the entity is engaged, and disclosure in the first year that the entity is no longer a development stage entity that it had been in prior years. In addition, the amendment clarifies guidance regarding entities that have not commenced planned principal operations. The amendment is effective for annual reporting periods beginning after December 15, 2014, and interim periods therein with early adoption permitted. The Company elected to early adopt this standard in the period ended June 30, 2014. Other than a change in presentation, the adoption of this guidance did not have an impact on the Company's financial statements.

In May 2014, the FASB issued guidance which supersedes all existing revenue recognition requirements, including most industry-specific guidance. The new standard requires a company to recognize revenue when it

transfers goods or services to customers in an amount that reflects the consideration that the company expects to receive for those goods or services. This guidance will be effective prospectively for fiscal years, and interim periods within those years, beginning after December 15, 2016, and early adoption is not permitted. The Company is currently evaluating the potential impact that the adoption of this guidance and the related transition guidance may have on the Company's financial statements.

In August 2014, the FASB issued accounting guidance for the disclosure of uncertainties related to an entity's ability to continue as a going concern. The new standard requires management to perform an assessment at interim and annual periods as to the entity's ability to continue as a going concern and provides specific disclosure guidance. This guidance will be effective for fiscal years, and interim periods within those years, beginning after December 15, 2016 and early adoption is permitted. The Company is currently evaluating the potential impact that the adoption of this guidance may have on the Company's financial statements.

## JOBS Act

On April 5, 2012, the JOBS Act was enacted. Section 107 of the JOBS Act provides that an "emerging growth company" can take advantage of the extended transition period provided in Section 7(a)(2)(B) of the Securities Act for complying with new or revised accounting standards. In other words, an "emerging growth company" can delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. We have irrevocably elected not to avail ourselves of this extended transition period and, as a result, we will adopt new or revised accounting standards on the relevant dates on which adoption of such standards is required for other public companies.

We are relying on other exemptions and reduced reporting requirements provided by the JOBS Act. Subject to certain conditions set forth in the JOBS Act, as an "emerging growth company," we intend to rely on certain of these exemptions, including without limitation, (i) providing an auditor's attestation report on our system of internal controls over financial reporting pursuant to Section 404(b) of the Sarbanes-Oxley Act, and (ii) complying with any requirement that may be adopted by the Public Company Accounting Oversight Board regarding mandatory audit firm rotation or a supplement to the auditor's report providing additional information about the audit and the financial statements, known as the auditor discussion and analysis. We will remain an emerging growth company until the earlier of (1) the last day of the fiscal year (a) following the fifth anniversary of the completion of our initial public offering, (b) in which we have total annual gross revenue of at least \$1.0 billion, or (c) in which we are deemed to be a large accelerated filer, which means the market value of our common stock that is held by non-affiliates exceeds \$700.0 million as of the prior June 30th, and (2) the date on which we have issued more than \$1.0 billion in non-convertible debt during the prior three-year period.

#### Item 7A. Quantitative and Qualitative Disclosures About Market Risk

Our primary exposure to market risk is interest income sensitivity, which is affected by changes in the general level of U.S. interest rates. Due to the short-term duration of our investment portfolio and the low risk profile of our investments, an immediate 10.0% change in interest rates would not have a material effect on the fair market value of our portfolio. Accordingly, we would not expect our operating results or cash flows to be affected to any significant degree by a sudden change in market interest rates on our investment portfolio.

We have borrowed \$5.0 million under our credit facility. Amounts outstanding under the credit facility bear interest at a fixed rate equal to 8.0% per annum. As of December 31, 2014, the carrying value of the term loan was \$3,593,333.

We do not believe that our cash, cash equivalents and marketable securities have significant risk of default or illiquidity. While we believe our cash and cash equivalents and certificates of deposit do not contain excessive risk, we cannot provide absolute assurance that in the future our investments will not be subject to adverse changes in market value. In addition, we maintain significant amounts of cash and cash equivalents at one or more financial institutions that are in excess of federally insured limits.

# Item 8. Financial Statements and Supplementary Data

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## **Report of Independent Registered Public Accounting Firm**

To the Board of Directors and Stockholders of Flexion Therapeutics, Inc.

In our opinion, the accompanying consolidated balance sheets and the related consolidated statements of operations and comprehensive loss, of changes in convertible preferred stock and stockholders' equity (deficit) and of cash flows present fairly, in all material respects, the financial position of Flexion Therapeutics, Inc. and its subsidiaries at December 31, 2014 and 2013, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2014 in conformity with accounting principles generally accepted in the United States of America. 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 of these statements 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, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

/s/ PricewaterhouseCoopers LLP Boston, Massachusetts March 24, 2015

# **Consolidated Balance Sheets**

	December 31,	
	2014	2013
Assets		
Current assets:		
Cash and cash equivalents	\$103,097,522	\$ 16,188,254
Marketable securities	48,527,156	250,047
Prepaid expenses and other current assets	502,314	181,962
Total current assets	152,126,992	16,620,263
Property and equipment, net	1,109,391	375,239
Deferred offering costs		1,623,540
Other assets	12,375	28,875
Restricted cash	128,000	128,000
Total assets	\$153,376,758	\$ 18,775,917
Liabilities, Convertible Preferred Stock and Stockholders' Equity (Deficit)		
Current liabilities:		
Accounts payable	\$ 1,584,822	\$ 1,279,874
Accrued expenses and other current liabilities	3,213,704	2,256,680
Current portion of long-term debt	2,000,000	1,500,000
Total current liabilities	6,798,526	5,036,554
Long-term debt	1,593,333	3,546,667
Other long-term liabilities	43,008	90,373
Total liabilities	8,434,867	8,673,594
Commitments and contingencies Preferred Stock, \$0.001 par value; 10,000,000 and 0 shares authorized at December 31, 2014 and 2013, respectively, and 0 shares issued and		
outstanding at December 31, 2014 and 2013		
Convertible preferred stock (Series A and B), \$0.001 par value; 0 and 73,780,250		
shares authorized, 0 and 72,780,250 shares issued and outstanding as of		
December 31, 2014 and 2013; aggregate liquidation preference of \$0 and		
\$75,043,464 at December 31, 2014 and 2013		74,806,213
Stockholders' equity (deficit):		
Common stock, \$0.001 par value; 100,000,000 and 94,000,000 shares		
authorized at December 31, 2014 and 2013, respectively; 21,440,058 and 794,090 shares issued and outstanding at December 31, 2014 and 2013,		
respectively	21,440	794
Additional paid-in capital	238,402,514	1,458,503
Accumulated other comprehensive income	(5,240)	(28)
Accumulated deficit	(93,476,823)	(66,163,159)
Total stockholders' equity (deficit)	144,941,891	(64,703,890)
Total liabilities, convertible preferred stock and stockholders' equity (deficit)	\$153,376,758	\$ 18,775,917
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Consolidated Statements of	<b>Operations and</b>	Comprehensive Loss
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	Year Ended December 31,			
	2014	2013	2012	
Revenue	\$	\$	\$	
Operating expenses:				
Research and development	17,923,348	11,060,912	11,065,137	
General and administrative	9,063,926	6,704,297	3,946,505	
Total operating expenses	26,987,274	17,765,209	15,011,642	
Loss from operations	(26,987,274)	(17,765,209)	(15,011,642)	
Other income (expense):				
Interest income	478,715	233,999	193,900	
Interest expense	(401,370)	(448,889)	_	
Other income (expense), net	(403,735)	(206,625)	(163,877)	
Total other income (expense)	(326,390)	(421,515)	30,023	
Net loss	\$(27,313,664)	\$(18,186,724)	\$(14,981,619)	
Net loss attributable to common stockholders	\$(27,313,664)	\$(18,186,724)	\$(14,981,619)	
Net loss per share attributable to common stockholders, basic and				
diluted	\$ (1.97)	\$ (23.02)	\$ (27.58)	
Weighted average common shares outstanding, basic and				
diluted	13,893,961	790,038	543,301	
Other comprehensive (loss) income:				
Unrealized (losses) gains from available-for-sale securities,				
net of tax of \$0	(5,212)	(2,478)	1,647	
Total other comprehensive (loss) income	(5,212)	(2,478)	1,647	
Comprehensive loss	\$(27,318,876)	\$(18,189,202)	\$(14,979,972)	

# Consolidated Statements of Changes in Convertible Preferred Stock and Stockholders' Equity (Deficit)

	Series A and B Convertible Preferred Stock		Commo	n Stock	Additional Paid-in	Accumulated Other Comprehensive	Accumulated	Total Stockholders'
	Shares	Amount	Shares	Par Value	Capital	Income (Loss)		
Balance at December 31,								
2011	41,950,000	41,835,747	530,240	530	311,941	803	(32,994,816)	(32,681,542)
Issuance of Series A Convertible Preferred Stock, net of issuance costs of \$11,476 Issuance of Series B Convertible Preferred Stock, net of issuance costs	13,093,464	13,081,988	_	_	_	_	_	_
of \$111,522	17 736 786	19,888,478	_	_	_	_		_
Exercise of stock options			258,982	259	41,851	_	_	42,110
Stock-based compensation								
expense		—	—	—	96,278	—		96,278
Net loss Other comprehensive	—	_		_	—	—	(14,981,619)	(14,981,619)
income	—	—	—	—		1,647	—	1,647
Balance at December 31, 2012	72 780 250	74,806,213	789,222	789	450,070	2,450	(47,976,435)	(47,523,126)
	12,180,230	74,000,213					(47,970,433)	
Exercise of stock options Stock-based compensation			4,868	5	12,266	—	—	12,271
expense	—			—	996,167	—	(10.10(.724)	996,167
Net loss Other comprehensive	_	_	_	_	_	(2.478)	(18,186,724)	(18,186,724)
income Balance at December 31,	_	—	_	_	_	(2,478)	_	(2,478)
2013	72,780,250	\$ 74,806,213	794,090	\$ 794	\$ 1,458,503	\$ (28)	\$(66,163,159)	(64,703,890)
Conversion of Series A and Series B Convertible Preferred Stock	(72,780,250)	(74,806,213)	8,952,057	8,952	74,797,261	_	_	74,806,213
Issuance of Common Stock			11 546 000	11 546	150 211 102			150 222 729
net of issuance costs Exercise of stock options	_		11,546,000 141,141	11,546 141	159,311,192 304,355	_	_	159,322,738 304,496
Employee Stock Purchase	_	_	141,141	141	504,555	—	_	504,490
Plan Stock-based compensation	—	—	6,770	7	80,624			80,631
expense	_	_	_	_	2,450,579	_	_	2,450,579
Net lossOther comprehensive loss	_		_	_		(5,212)	(27,313,664)	(27,313,664) (5,212)
Balance at December 31,	·	ф.	21 440 070	¢01.440		ф <i>(5.2.10</i> )		144.041.001
2014		\$	21,440,058	\$21,440	\$238,402,514	\$(5,240)	\$(93,476,823)	144,941,891

# **Consolidated Statements of Cash Flows**

	Year Ended December 31,		
	2014	2013	2012
Cash flows from operating activities			
Net loss	\$(27,313,664)	\$(18,186,724)	(14, 981, 619)
Adjustments to reconcile net loss to cash used in operating activities:	100 241	70.000	12 222
Depreciation	120,341	79,808	43,233
Stock-based compensation expense	2,450,579 366,231	996,167 151,138	96,278 137,163
Loss on disposal of property and equipment	500,251	131,138	157,105
Other non-cash charges	16,500	63,167	
Changes in operating assets and liabilities:	10,000	00,107	
Prepaid expenses and other current and long-term assets	(320,352)	343,896	(178,571)
Accounts payable	518,032	475,821	(176,272)
Accrued expenses and other current and long-term liabilities	1,017,412	(124,328)	1,079,925
Net cash used in operating activities	(23,144,921)	(16,186,944)	(13,979,863)
Cash flows from investing activities			
Purchases of property and equipment	(802,481)	(405,315)	(34,914)
Change in restricted cash	_	(98,000)	_
Purchases of marketable securities	(79,383,553)	(15,015,663)	(28,465,790)
Redemption of marketable securities	30,735,000	31,160,000	18,967,000
Net cash provided by (used in) investing activities	(49,451,034)	15,641,022	(9,533,704)
Cash flows from financing activities			
Proceeds from borrowings under term loan		5,000,000	
Payments of debt issuance costs		(40,715)	(21,161)
Payments on debt	(1,500,000)		
Payment of public offering costs	(1,517,484)	(1,072,710)	—
Proceeds from issuance of Series A Convertible Preferred Stock, net of issuance			12 001 000
costs			13,081,988
costs	_		19,888,478
Proceeds from the issuance of common stock	162,137,580		17,000,470
Proceeds from the exercise of stock options	304,496	12,271	42,110
Proceeds from Employee Stock Purchase Plan			
Net cash provided by financing activities		3,898,846	32,991,415
Net increase (decrease) in cash and cash equivalents	86,909,268	3,352,924	9,477,848
Cash and cash equivalents at beginning of period	16,188,254	12,835,330	3,357,482
Cash and cash equivalents at end of period	\$103,097,522	\$ 16,188,254	\$ 12,835,330
Supplemental disclosures of cash flow information:			
Cash paid for interest	\$ 364,889	\$ 367,778	\$
Supplemental disclosures of non-cash financing activities:			
Debt issuance costs included in accounts payable and accrued expenses	\$	\$	\$ 36,318
Deferred initial public offering costs included in accounts payable or accrued	<i><b>•</b></i>		<i>•</i>
expenses		\$ 550,830	
Public offering costs included in accounts payable or accrued expenses			\$ —
Conversion of convertible preferred stock into common stock	\$ 74,806,213	Ф —	\$ —

#### Notes to Consolidated Financial Statements

#### 1. Nature of the Business

Flexion Therapeutics, Inc. ("Flexion" or the "Company") was incorporated under the laws of the state of Delaware on November 5, 2007. Flexion is a specialty pharmaceutical company focused on the development and commercialization of novel, injectable pain therapies. The Company is targeting anti-inflammatory and analgesic therapies for the treatment of patients with musculoskeletal conditions, beginning with osteoarthritis, a type of degenerative arthritis ("OA") and post-operative pain. Flexion's broad and diversified portfolio of product candidates addresses the OA pain treatment spectrum, from moderate to severe pain, and provides the Company with multiple opportunities to achieve its goal of commercializing novel, patient-focused pain therapies.

The Company is subject to risks and uncertainties common to early-stage companies in the biopharmaceutical industry, including, but not limited to, new technological innovations, dependence on key personnel, protection of proprietary technology, compliance with government regulations, and ability to secure additional capital to fund operations. Product candidates currently under development will require significant additional research and development efforts, including extensive preclinical and clinical testing and regulatory approval prior to commercialization. These efforts require significant amounts of additional capital, adequate personnel infrastructure and extensive compliance reporting capabilities. The Company's product candidates are all in the development stage. There can be no assurance that development efforts, including clinical trials, will be successful. Even if the Company's product development efforts are successful, it is uncertain when, if ever, the Company will realize significant revenue from product sales.

The accompanying consolidated financial statements have been prepared on a basis which assumes that the Company will continue as a going concern and which contemplates the realization of assets and satisfaction of liabilities and commitments in the normal course of business. The Company has incurred recurring losses and negative cash flows from operations. As of December 31, 2014 and 2013, the Company had cash, cash equivalents and marketable securities of \$151,624,678 and \$16,438,301, respectively. Management believes that current cash, cash equivalents and marketable securities on hand at December 31, 2014 should be sufficient to fund operations for at least the next twelve months. The future viability of the Company is dependent on its ability to raise additional capital to finance its operations and to fund increased research and development costs in order to seek approval for commercialization of its product candidates. The Company may not be able to obtain financing on acceptable terms, or at all. The Company's failure to raise capital as and when needed would have a negative impact on its financial condition and its ability to pursue its business strategies. This capital is necessary for the Company to perform the research and development activities required to develop the Company's product candidates in order to generate future revenue streams.

## 2. Financing Transactions

On February 18, 2014, the Company completed an initial public offering ("IPO") of its common stock, which resulted in the sale of 5,750,000 shares of common stock at a price to the public of \$13.00 per share, including shares sold pursuant to the exercise in full of the underwriters' option to purchase additional shares. The Company received net proceeds from the IPO of \$67.2 million after deducting underwriting discounts, commissions, and offering costs paid by the Company. In preparation for the IPO, the Company's Board of Directors and stockholders approved a 1-for-8.13 reverse stock split of the Company's common stock and a proportional adjustment to the existing conversion ratios for each series of Convertible Preferred Stock, effective January 27, 2014. All share and per share amounts in the consolidated financial statements and notes thereto have been retroactively adjusted, where necessary, to give effect to this reverse stock split. In connection with the closing of the IPO, all of the Company's outstanding redeemable convertible preferred stock automatically converted to common stock as of February 18, 2014, resulting in an additional 8,952,057 shares of common stock of the Company becoming outstanding.

On December 17, 2014, the Company completed a follow-on public offering of its common stock, which resulted in the sale of 5,796,000 shares of the Company's common stock at a price to the public of \$17.00 per share including shares sold pursuant to the exercise in full of the underwriters' option to purchase additional shares. The Company received net proceeds from the follow-on financing of \$92.2 million after deducting underwriting discounts, commissions, and offering costs paid by the Company.

The Company's total issued common stock as of December 31, 2014 was 21,440,058 shares.

## 3. Summary of Significant Accounting Policies

## **Basis of Presentation**

The accompanying consolidated financial statements have been prepared in accordance with the rules and regulations of the Securities and Exchange Commission (the "SEC") and Generally Accepted Accounting Principles ("GAAP") for financial information, including the accounts of the Company and its wholly owned subsidiary after elimination of all significant intercompany accounts and transactions.

### **Use of Estimates**

The preparation of financial statements in conformity with GAAP requires management to make estimates and judgments that may affect the reported amounts of assets and liabilities, expenses and related disclosures. The Company bases estimates and judgments on historical experience and on various other factors that it believes to be reasonable under the circumstances. The most significant estimates in these consolidated financial statements include useful lives with respect to long-lived assets, such as property and equipment and leasehold improvements, accounting for stock-based compensation, and accrued expenses, including clinical research costs. The Company's actual results may differ from these estimates under different assumptions or conditions. The Company evaluates its estimates on an ongoing basis. Changes in estimates are reflected in reported results in the period in which they become known by the Company's management.

#### Consolidation

The accompanying consolidated financial statements include the Company and its wholly-owned subsidiary, Flexion Securities Corporation, Inc. The Company has eliminated all intercompany transactions for the year ended December 31, 2014, the year Flexion Securities Corporation, Inc. was established.

#### **Cash and Cash Equivalents**

The Company considers all highly liquid investments with a maturity of three months or less at the date of purchase to be cash equivalents. The Company currently invests available cash in money market funds of a major financial institution, corporate bonds, government obligations and commercial paper.

## **Marketable Securities**

Marketable securities consist of investments with original maturities greater than ninety days and less than one year from the balance sheet date. Long-term investments consist of investments with maturities of greater than one year. The Company classifies all of its investments as available-for-sale securities. Accordingly, these investments are recorded at fair value, which is based on quoted market prices. Realized gains and losses are determined on a specific identification basis and are included in other income (loss). Amortization and accretion of discounts and premiums is recorded in other income.

## **Restricted Cash**

The Company purchased a \$30,000 certificate of deposit to collateralize a credit card account with a commercial bank that was classified as long-term restricted cash as of December 31, 2014 and 2013. In addition,

the Company posted a letter of credit to the lessor of the Company's Burlington facility in the amount of \$98,000 as a security deposit pursuant to the lease agreement in the year ended December 31, 2014. That amount was classified as long-term restricted cash at December 31, 2014 and 2013.

## **Property and Equipment**

Property and equipment are stated at cost less accumulated depreciation. Depreciation and amortization expense is recognized using the straight-line method over the following estimated useful lives:

	Estimated Useful Life (Years)
Computers, software and office equipment	3
Manufacturing equipment	7
Furniture and fixtures	5

Leasehold improvements are amortized over the shorter of the lease term or the estimated useful life of the related asset. Costs of major additions and betterments are capitalized and depreciated on a straight-line basis over their useful lives. Repairs and maintenance costs are expensed as incurred. Upon retirement or sale, the cost of assets disposed of and the related accumulated depreciation are removed from the accounts and any resulting gain or loss is credited or charged to income.

## Impairment of Long-Lived Assets

The Company reviews its long-lived assets, including property and equipment, for impairment whenever events or changes in business circumstances indicate that the carrying amount of the assets may not be fully recoverable. Factors that the Company considers in deciding when to perform an impairment review include significant underperformance of the business in relation to expectations, significant negative industry or economic trends, and significant changes or planned changes in the use of the assets. If an impairment review is performed to evaluate a long-lived asset for recoverability, the Company compares forecasts of undiscounted cash flows expected to result from the use and eventual disposition of the long-lived asset to its carrying value. An impairment loss would be recognized when estimated undiscounted future cash flows expected to result from the use of an asset are less than its carrying amount. The impairment loss would be based on the excess of the carrying value of the impaired asset over its fair value, determined based on discounted cash flows.

## **Debt Issuance Costs, net**

Debt issuance costs, net represent legal costs related to the Company's Credit and Security Agreement (Note 9). These costs are recorded as debt issuance costs on the balance sheets at the time they are incurred and are being amortized to interest expense through the scheduled final principal payment date. As of December 31, 2014 and 2013, the carrying value of debt issuance costs was \$16,500 and \$16,500, respectively, reported in prepaid expenses and other current assets and \$12,375 and \$28,875, respectively, reported in other assets. In addition, \$16,500 of debt issuance costs were amortized and recognized as interest expense in the statement of operations for the year ended December 31, 2014 and 2013. The Company did not recognize any interest expense related to debt issuance costs during the year ended December 31, 2012.

#### **Deferred Offering Costs**

The Company capitalizes certain legal, accounting and other third-party fees that are directly associated with in-process equity financings as other assets until such financings are consummated. After consummation of the equity financing, these costs are recorded in stockholders' deficit as a reduction of additional paid-in capital generated as a result of the offering. If the equity financing is no longer considered probable of being consummated, the deferred offering costs would be expensed immediately as a charge to operating expenses in the consolidated statement of operations. As of December 31, 2013, the Company recorded deferred offering costs of \$1,623,540 in the accompanying balance sheet in contemplation of a 2014 equity financing. The Company completed its initial public offering in February 2014 and did not record any deferred offering costs as of December 31, 2014.

## **Research and Development**

Research and development expenses are comprised of costs incurred in performing research and development activities, including salaries and benefits, facilities costs, overhead costs, depreciation, clinical trial and related clinical manufacturing costs, contract services and other related costs. Research and development costs are expensed to operations as the related obligation is incurred.

## **Patent Costs**

All patent-related costs incurred in connection with filing and prosecuting patent applications are recorded as general and administrative expenses as incurred, as recoverability of such expenditures is uncertain.

#### Accounting for Stock-Based Compensation

The Company measures all stock options and other stock based-awards granted to employees at the fair value at the date of grant using the Black-Scholes option-pricing model. The fair value of the awards is recognized as expense, net of estimated forfeitures, over the requisite service period, which is generally the vesting period of the respective award. The straight-line method of expense recognition is applied to all awards with service-only conditions.

For stock-based awards granted to non-employees, compensation expense is recognized over the period during which services are rendered by such non-employees until completed. At the end of each financial reporting period prior to completion of the service, the fair value of these awards is re-measured using the then current fair value of the Company's common stock and updated assumption inputs in the Black-Scholes option-pricing model.

The Company classifies stock-based compensation expense in the consolidated statements of operations in the same manner in which the award recipient's payroll costs are classified, or in the case of a non-employee, in the same manner as the award recipient's service costs are classified.

The Company recognizes compensation expense only for the portion of awards that are expected to vest. In developing a forfeiture rate estimate, the Company has considered its historical experience to estimate prevesting forfeitures for service-based awards. The impact of a forfeiture rate adjustment will be recognized in full in the period of adjustment, and if the actual forfeiture rate is materially different from the Company's estimate, the Company may be required to record adjustments to stock-based compensation expense in future periods.

## **Concentration of Credit Risk and Significant Suppliers**

Financial instruments that potentially expose the Company to concentration of credit risk consist primarily of commercial paper and bonds. The Company generally invests its cash in money market funds, government and corporate bonds, and commercial paper at one financial institution. The Company does not believe that it is subject to unusual credit risk beyond the normal credit risk associated with commercial banking relationships.

The Company is completely dependent on third-party manufacturers and product suppliers for preclinical research activities. In particular, the Company relies and expects to continue to rely exclusively on one manufacturer and relies on the manufacturer to purchase from third-party suppliers the materials necessary to produce its product candidates for its clinical trials. These research programs would be adversely affected by a significant interruption in the supply of active pharmaceutical ingredients.

## **Comprehensive Loss**

Comprehensive income (loss) includes net loss as well as other changes in stockholders' deficit that result from transactions and economic events other than those with stockholders. The Company's only element of other comprehensive income (loss) in all periods presented was unrealized gains (losses) on available-for-sale securities.

# **Income Taxes**

The Company accounts for income taxes using the asset and liability method. Under this method, deferred tax assets and liabilities are recognized for the estimated future tax consequences of events that have been recognized in the financial statements or in the Company's tax returns. Deferred taxes are determined based on the differences between financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Deferred tax assets and liabilities are measured using enacted rates in effect for the year in which these temporary differences are expected to be recovered or settled. Changes in deferred tax assets and liabilities are recorded in the provision for income taxes. The Company assesses the likelihood that its deferred tax assets will be recovered from future taxable income and, to the extent it believes, based upon the weight of available evidence, that it is more likely than not that all or a portion of deferred tax assets will not be realized, a valuation allowance is established through a charge to income tax expense. Potential recovery of deferred tax assets is evaluated by estimating the future taxable profits expected and considering prudent and feasible tax planning strategies.

The Company accounts for uncertainty in income taxes recognized in the financial statements by applying a two-step process to determine the amount of tax benefit to be recognized. First, the tax position must be evaluated to determine the likelihood that it will be sustained upon external examination by the taxing authorities. If the tax position is deemed more-likely-than-not to be sustained, the tax position is then assessed to determine the amount of benefit to recognize in the financial statements. The amount of benefit that may be recognized is the largest amount that has a greater than 50% likelihood of being realized upon ultimate settlement. The provision for income taxes includes the effects of any resulting tax reserves, or unrecognized tax benefits, that are considered appropriate as well as the related net interest and penalties.

#### **Fair Value Measurements**

Fair value is defined as the exchange price that would be received to sell an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants at the measurement date. Valuation techniques used to measure fair value must maximize the use of observable inputs and minimize the use of unobservable inputs. Financial assets and liabilities carried at fair value are to be classified and disclosed in one of the following three levels of the fair value hierarchy, of which the first two are considered observable and the last is considered unobservable:

- Level 1 Quoted market prices in active markets for identical assets or liabilities. Level 1 consists primarily of financial instruments whose value is based on quoted market prices, such as exchange-traded instruments and listed equities.
- Level 2 Observable inputs (other than Level 1 quoted prices) such as quoted prices in active markets for similar assets or liabilities, quoted prices in markets that are not active for identical or similar assets or liabilities, or other inputs that are observable or can be corroborated by observable market data.
- Level 3 Unobservable inputs that are supported by little or no market activity and that are significant to determining the fair value of the assets or liabilities, including pricing models, discounted cash flow methodologies and similar techniques.

The Company's financial instruments consist of cash equivalents, marketable securities, restricted cash, accounts payable and accrued expenses, and its term loan (Note 9). The estimated fair value of the Company's financial instruments approximates their carrying values.

#### **Net Loss Per Share**

The Company follows the two-class method when computing net loss per share as the Company has issued shares that meet the definition of participating securities. The two-class method determines net loss per share for each class of common and participating securities according to dividends declared or accumulated and participation rights in undistributed earnings. The two-class method requires income available to common stockholders for the period to be allocated between common and participating securities based on their respective rights to receive dividends as if all income for the period had been distributed.

The Company's convertible preferred shares contractually entitle the holders of such shares to participate in dividends, but do not contractually require the holders of such shares to participate in the losses of the Company. Accordingly, in periods in which the Company reports a net loss or a net loss attributable to common stockholders resulting from preferred stock dividends, net losses are not allocated to participating securities. In periods of net loss, the Company does not increase its net loss attributable to common stockholders by accreting dividends on preferred stock, as the dividends are not cumulative under the terms of the preferred stock. The Company reported a net loss attributable to common stockholders for the year ended December 31, 2014, 2013 and 2012.

Basic net loss per share attributable to common stockholders is computed by dividing the net loss attributable to common stockholders by the weighted average number of shares of common stock outstanding for the period. Diluted net loss attributable to common stockholders is computed by adjusting net loss attributable to common stockholders to reallocate undistributed earnings based on the potential impact of dilutive securities, including outstanding stock options and unvested restricted common stock. Diluted net loss per share attributable to common stockholders is computed by dividing the diluted net loss attributable to common stockholders by the weighted average number of common shares outstanding for the period, including potential dilutive common shares assuming the dilutive effect of outstanding stock options and unvested restricted common stockholders, since dilutive common stockholders is the same as basic net loss per share attributable to common stockholders, since dilutive common stockholders is the same as basic net loss per share attributable to common stockholders for periods in which the Company has reported a net loss. Diluted net loss per share attributable to common shares will always be anti-dilutive for periods in which the Company has reported a net loss. Diluted net loss per share attributable to common shares will always be anti-dilutive for periods in which the Company has reported a net loss. Diluted net loss per share attributable to common stockholders is the same as basic net loss per share attributable to common stockholders for the years ended December 31, 2014, 2013 and 2012.

### Segment Data

The Company manages its operations as a single operating segment for the purposes of assessing performance and making operating decisions. The Company is a specialty pharmaceutical company focused on the development and commercialization of novel, injectable pain therapies. No revenue has been generated since inception, and all assets are held in the United States.

### **Recently Issued and Adopted Accounting Pronouncements**

In June 2014, the Financial Accounting Standard Board, or FASB, issued amended accounting guidance for development stage entities. The amendment eliminates certain financial reporting requirements for development stage entities, specifically, the presentation of inception-to-date information, the development stage entity label on the financial statements, the description of the activities in which the entity is engaged, and disclosure in the first year that the entity is no longer a development stage entity that it had been in prior years. In addition, the amendment clarifies guidance regarding entities that have not commenced planned principal operations. The amendment is effective for annual reporting periods beginning after December 15, 2014, and interim periods therein with early adoption permitted. The Company elected to early adopt this standard in the period ended June 30, 2014. Other than a change in presentation, the adoption of this guidance did not have an impact on the Company's financial statements.

In May 2014, the FASB issued guidance which supersedes all existing revenue recognition requirements, including most industry-specific guidance. The new standard requires a company to recognize revenue when it transfers goods or services to customers in an amount that reflects the consideration that the company expects to receive for those goods or services. This guidance will be effective prospectively for fiscal years, and interim periods within those years, beginning after December 15, 2016, and early adoption is not permitted. The Company is currently evaluating the potential impact that the adoption of this guidance and the related transition guidance may have on the Company's financial statements.

In August 2014, the FASB issued accounting guidance for the disclosure of uncertainties related to an entity's ability to continue as a going concern. The new standard requires management to perform an assessment at interim and annual periods as to the entity's ability to continue as a going concern and provides specific disclosure guidance. This guidance will be effective for fiscal years, and interim periods within those years, beginning after December 15, 2016 and early adoption is permitted. The Company is currently evaluating the potential impact that the adoption of this guidance may have on the Company's financial statements.

## 4. Fair Value of Financial Assets

The following tables present information about the Company's assets and liabilities that are measured at fair value on a recurring basis as of December 31, 2014 and 2013 and indicate the level of the fair value hierarchy utilized to determine such fair value:

	Fair Value Measurements as of December 31, 2014 Using:				
	Level 1	Level 2	Level 3	Total	
Assets:					
Cash equivalents	\$—	\$101,687,995	\$—	\$101,687,995	
Marketable securities		48,527,156		48,527,156	
	\$	\$150,215,151	\$	\$150,215,151	
	Fair Va	alue Measurements as o	of December 3	1, 2013 Using:	
	Level 1	Level 2	Level 3	Total	
Assets:					
Cash equivalents	\$—	\$ 14,957,788	\$—	\$ 14,957,788	
Marketable securities		250,047		250,047	
	\$—	\$ 15,207,835	\$—	\$ 15,207,835	

As of December 31, 2014 and 2013, the Company's cash equivalents that are invested in money market funds are valued based on Level 2 inputs. The Company measures the fair value of marketable securities using Level 2 inputs and primarily relies on quoted prices in active markets for similar marketable securities. During the years ended December 31, 2014 and 2013, there were no transfers between Level 1, Level 2 and Level 3. Amortization and accretion of discounts and premiums are recorded in other income.

As outlined in Note 9, the Company has a term loan with MidCap Financial SBIC, LP ("MidCap"). The term loan outstanding under the Company's credit and security agreement with MidCap is reported at its carrying value in the accompanying balance sheet. The Company determined the fair value of the term loan using an income approach, utilizing a discounted cash flow analysis based on current market interest rates for debt issuances with similar remaining years to maturity, adjusted for credit risk. The term loan was valued using Level 2 inputs as of December 31, 2014. The result of the calculation yielded a fair value that approximates carrying value.

## 5. Marketable Securities

As of December 31, 2014 and 2013, the fair value of available-for-sale marketable securities by type of security was as follows:

	December 31, 2014				
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value	
Commercial paper	\$ 8,991,820	\$7,570	\$ —	\$ 8,999,390	
U.S. Government obligations	28,300,921	181	(5,101)	28,296,001	
Corporate bonds	11,239,655	2	(7,892)	11,231,765	
	\$48,532,396	\$7,753	\$(12,993)	\$48,527,156	
		Decembe	er 31, 2013		
	Amortized Cos	Gross Unrealize Gains	d Gross Unrealize	ed Fair Value	
Corporate bonds	. 250,075		(28)	250,047	
	\$250,075	<u>\$ —</u>	<u>\$(28)</u>	\$250,047	

At December 31, 2014 and 2013, marketable securities consisted of investments that mature within one year.

## 6. Prepaid Expenses and Other Current Assets and Other Assets

Prepaid expenses and other current assets and other assets consisted of the following as of December 31, 2014 and 2013:

	December 31,		
	2014	2013	
Prepaid expenses	\$269,199	\$132,266	
Debt issuance costs	16,500	16,500	
Interest receivable on marketable securities	216,615	33,196	
Total prepaid expenses and other current assets	\$502,314	\$181,962	
	Decer	nber 31,	
	2014	2013	
Debt issuance costs	\$12,375	\$28,875	
Total other assets	\$12,375	\$28,875	

In connection with entering into a credit and security agreement (Note 9), the Company incurred debt acquisition costs in the amount of \$61,876. The Company capitalized these costs and is amortizing them as interest expense over the term of the term loan using the effective interest rate method. Total amortization expense for the debt issuance costs was \$16,500 for each of the years ended December 31, 2014 and 2013.

## 7. Property and Equipment, Net

Property and equipment, net, as of December 31, 2014 and 2013 consisted of the following:

	December 31,		
	2014	2013	
Computer and office equipment	\$ 229,980	\$ 257,346	
Manufacturing equipment	153,140	99,684	
Furniture and fixtures	181,366	149,183	
Software	77,454		
Leasehold improvements	134,573	130,626	
Construction—in Progress	601,317		
	1,377,830	636,839	
Less: Accumulated depreciation	(268,439)	(261,600)	
Total property and equipment, net	\$1,109,391	\$ 375,239	

Depreciation expense for the years ended December 31, 2014, 2013 and 2012, was \$120,341, \$79,808, and \$43,233, respectively. During the years ended December 31, 2014 and 2013, \$ 113,502 and \$16,695 of property and equipment was disposed of, resulting in a loss of \$0 and \$14,111, respectively.

#### 8. Accrued Expenses and Other Current Liabilities

Accrued expenses and other current liabilities at December 31, 2014 and 2013 consisted of the following:

	December 31,	
	2014	2013
Clinical research	\$1,035,510	\$ 163,521
Contract manufacturing services	294,900	529,287
Payroll and other employee-related expenses	1,172,978	792,165
Preclinical services	119,500	5,685
Consultant fees and expenses	26,900	21,718
Professional services fees	439,874	642,052
Interest expense	24,111	34,445
Other	99,931	67,807
Total accrued expenses and other current liabilities	\$3,213,704	\$2,256,680

## 9. Long-term Debt

On January 3, 2013, the Company entered into a credit and security agreement with MidCap under which it immediately borrowed \$5,000,000 as a term loan. The term loan accrues interest monthly at an interest rate of 8.0% per annum and has a term of 45 months. As the term loan has a 15-month interest-only period, the term loan principal balance, along with any accrued interest, is to be paid in 30 equal monthly installments beginning April 1, 2014 and ending September 1, 2016. In addition to these principal payments, the Company is required to make a payment of \$175,000 to the lender on September 1, 2016, which is being accreted to the carrying value of the debt using the effective interest rate method. As of December 31, 2014, the carrying value of the term loan was \$3,593,333 of which \$2,000,000 was classified as the current portion of long-term debt on the balance sheet as of December 31, 2014. In connection with the credit and security agreement, the Company granted MidCap a security interest in all of the Company's personal property now owned or hereafter acquired, excluding intellectual property but including the proceeds from the sale, if any, of intellectual property, and a negative

pledge on intellectual property. The credit and security agreement also contains certain representations, warranties and non-financial covenants of the Company. As of December 31, 2014, the Company was compliant with all covenants.

#### 10. Convertible Preferred Stock

As of December 31, 2013, the Company's Certificate of Incorporation, as amended, authorized the Company to issue 73,780,250 shares of preferred stock with a par value of \$0.001 per share. The Company has issued Series A and Series B Convertible Preferred Stock (collectively, the "Convertible Preferred Stock"). Of the 73,780,250 authorized shares, 72,780,250 shares are issued; 55,043,464 of the issued shares are designated as Series A Convertible Preferred Stock ("Series A Preferred Stock") and 18,736,786 are designated as Series B Convertible Preferred Stock ("Series B Preferred Stock").

In December 2012, the Company issued 17,736,786 shares of Series B Preferred Stock at a purchase price of \$1.1276 per share ("Series B Original Issue Price"). The Series B Preferred Stock issuance resulted in net proceeds of \$19,888,478. Included in the Series B Preferred Stock issuance were contingently issuable warrants for the purchase of 218,160 shares of common stock at \$0.01 per share. These warrants were contingently issuable if the Company did not initiate and enroll the first patient in a multi-dose Phase 2b clinical trial with planned enrollment of at least 100 patients for the Company's product candidate identified as FX005 by February 15, 2014. Additionally, the obligation to issue the warrants would terminate on the earlier to occur of (i) the consummation of a registered initial public offering, which is defined as a firmly underwritten public offering pursuant to an effective registration statement under the Securities Act of 1933, as amended, covering the offer and sale of common stock for the account of the Company and (ii) the occurrence of a liquidation event or the consummation of a deemed liquidation event. The Company determined that the contingently issuable common stock warrants were equity in nature. As such, the Company allocated the Series B Preferred Stock proceeds to both the Series B Preferred Stock and the contingently issuable common stock warrants based on relative fair values at the issuance date. Given the low probability assessed by the Company of not satisfying the contingency and having to issue the warrants, the amount ascribed to the warrants was immaterial and the full amount of the proceeds was allocated to the Series B Preferred Stock.

On February 18, 2014, the Company completed an initial public offering ("IPO") of its common stock. In preparation for the IPO, the Company's Board of Directors and stockholders approved a 1-for-8.13 reverse stock split of the Company's common stock and a proportional adjustment to the existing conversion ratios for each series of Convertible Preferred Stock. On January 27, 2014, the Company and holders of a majority of the Company's Series A Convertible Preferred Stock and Series B Convertible Preferred Stock entered into a Conversion, Amendment and Waiver Agreement. This agreement amended the milestone date associated with the contingently issuable common stock warrants from February 15, 2014 to February 21, 2014. In connection with the closing of the IPO, all of the Company's outstanding redeemable convertible preferred stock automatically converted to common stock as of February 18, 2014, resulting in an additional 8,952,057 shares of common stock of the Company becoming outstanding. As the Company's IPO was completed prior to February 21, 2014 these warrants expired.

The following is a summary of the Company's Convertible Preferred Stock as of December 31, 2013:

	December 31, 2013					
	Preferred Shares Authorized	Preferred Shares Issued and Outstanding	Carrying Value	Liquidation Preference	Common Stock Issuable Upon Conversion	
Series A Preferred Stock	55,043,464	55,043,464	\$54,917,735	\$55,043,464	6,770,411	
Series B Preferred Stock	18,736,786	17,736,786	19,888,478	20,000,000	2,181,646	
	73,780,250	72,780,250	\$74,806,213	\$75,043,464	8,952,057	

The holders of the preferred stock had the following rights and preferences:

## Voting Rights

The holders of preferred stock were entitled to vote, together with the holders of common stock, on all matters submitted to stockholders for a vote. Each preferred stockholder was entitled to the number of votes equal to the number of shares of common stock into which each preferred share is convertible at the time of such vote.

# Dividends

The holders of both Series A and B Preferred Stock were entitled to receive, out of funds legally available, non-cumulative dividends at an annual rate of 8.0%, when and if declared by the board of directors. Holders of Series B Preferred Stock receive such dividends in preference to any dividend on Series A Preferred Stock or common stock. After payment of any amounts payable to holders of Series B Preferred Stock, the holders of Series A Preferred Stock were entitled to receive such dividends in preference to any dividend on common stock. No dividends have been declared or paid from inception to December 31, 2014.

#### Liquidation

Prior to the conversion of the Company's Series A and Series B preferred stock on February 18, 2014, in connection with the closing of the Company's IPO, the following liquidation preferences and conversion rates were in effect. The Company does not currently have any holders of securities with either liquidation preferences or conversion rights.

Upon any liquidation, dissolution, or winding up of the Company, whether voluntary or involuntary (each, a "Liquidation Event"), before any distribution or payment would have been made to the holders of any common stock, the Company would have made payment to the holders of preferred stock as follows: The holders of the Series B Preferred Stock, in preference to the holders of the Series A Preferred Stock and common stock, were entitled to be paid out of the assets of the Company legally available for distribution for each share of Series B Preferred Stock held by them, an amount per share equal to the applicable Series B Original Issue Price plus all declared and unpaid dividends on such shares of Series B Preferred Stock, if any (the "Series B Liquidation Preference").

After the payment of the full liquidation preference of the Series B Preferred Stock, the holders of Series A Preferred Stock, in preference to holders of common stock, would have been entitled to be paid out of the assets of the Company legally available for distribution for each share of Series A Preferred Stock held by them, an amount per share of Series A Preferred Stock equal to the Series A Original Issue Price plus all declared and unpaid dividends on the Series A Preferred Stock, if any (the "Series A Liquidation Preference").

After payment in full of the Series B Liquidation Preference and the Series A Liquidation Preference as set forth above, the remaining assets of the Company legally available for distribution, if any, would have been distributed ratably to the holders of the common stock.

Shares of Series A and B Preferred Stock would not have been entitled to be converted into shares of common stock in order to participate in any distribution, or series of distributions, as shares of common stock, without first foregoing participation in the distribution, or series of distributions, as shares of Series A and B Preferred Stock.

## Conversion

Each share of Series A and B Preferred Stock was convertible at any time at the option of the stockholder into fully paid and non-assessable shares of common stock. The number of shares of common stock to which a

holder of any series of Series A and B Preferred Stock was entitled upon conversion was the product obtained by multiplying the Conversion Rate then in effect for such series of preferred stock by the number of shares of such series of preferred stock being converted.

The conversion rate in effect at any time for conversion of the preferred stock (the "Conversion Rate") was (i) for the Series A Preferred Stock, the quotient obtained by dividing the Series A Original Issue Price by the Conversion Price of the Series A Preferred Stock and (ii) for the Series B Preferred Stock, the quotient obtained by dividing the Series B Original Issue Price by the Conversion Price of the Series B Original Issue Price by the Conversion Price of the Series B Original Issue Price by the Conversion Price of the Series B Original Issue Price by the Conversion Price of the Series B Original Issue Price by the Conversion Price of the Series B Original Issue Price by the Conversion Price of the Series B Original Issue Price by the Conversion Price of the Series B Original Issue Price by the Conversion Price of the Series B Original Issue Price by the Conversion Price of the Series B Original Issue Price by the Conversion Price of the Series B Original Issue Price by the Conversion Price of the Series B Original Issue Price by the Conversion Price of the Series B Original Issue Price B Original Issue Price by the Conversion Price of the Series B Original Issue Price B Original Issue B Original Issue Price B Original Issue Price B Original Issue Price B Original Issue Price B Original Issue B Original Issue B Original Issue Price B Original Issue B

The Conversion Price of Series A Preferred Stock was \$8.13 as of December 31, 2013, and the Conversion Price of Series B Preferred Stock was \$9.166575 as of December 31, 2013. As of December 31, 2013, all outstanding shares of Series A Preferred Stock and Series B Preferred Stock were convertible into common stock on a 0.123001-for-1 basis. The Conversion Price of each series of preferred stock was subject to adjustment for stock splits, stock dividends and other recapitalizations in accordance with the Company's Certificate of Incorporation, as amended.

In addition to the above optional conversion feature, the Series A and B Preferred Stock included a mandatory conversion feature whereby upon a qualifying initial public offering, all outstanding shares of Series A and B Preferred Stock would automatically be converted into shares of common stock at the then effective conversion rate. A qualifying initial public offering is an initial public offering in which (i) the per share price is at least \$27.48 (as adjusted for any stock splits, dividends, combinations, recapitalizations and the like after the filing date), and (ii) the gross cash proceeds to the Company (before underwriting discounts, commissions and fees) are at least \$40,000,000. All shares that are required to be surrendered per the provisions above were deemed to have been retired and canceled and may not be reissued as shares of preferred stock.

# 11. Preferred Stock

On February 17, 2014, the Company filed an amended and restated Certificate of Incorporation (the "Restated Certificate") in connection with the closing of the Company's initial public offering. As of December 31 2014, under the Restated Certificate the Company is authorized to issue 10,000,000 shares of preferred stock with a par value of \$0.001 per share.

### 12. Common Stock

Upon inception of the Company on November 5, 2007, the Company authorized 10,000,000 shares of common stock and issued 109 shares to the founders. In 2009, the Company amended its Certificate of Incorporation and authorized an additional 69,000,000 shares of common stock, \$0.001 par value, bringing the total number of shares of common stock authorized to 79,000,000. In 2012, the Company amended its Certificate of Incorporation and authorized an additional 15,000,000 shares of common stock, \$0.001 par value, bringing the total number of shares of common stock authorized to 94,000,000. In 2014, the Company amended its Certificate of Incorporation and authorized an additional 6,000,000 shares of common stock, \$0.001 par value, bringing the total number of shares of common stock authorized to 94,000,000. In 2014, the Company amended its Certificate of Incorporation and authorized an additional 6,000,000 shares of common stock, \$0.001 par value, bringing the total number of shares of common stock authorized to 100,000,000.

In December 2008, the Company issued 301,350 shares of common stock for proceeds of \$20,750. Additionally 110,701 shares were issued to the founders of the Company, 73,800 shares were issued to a prospective preferred stock investor, and 116,849 shares were issued to non-employee consultants. The 110,701 shares issued to the founders and 116,849 of the shares issued to non-employee consultants were subject to restrictions that were satisfied over a four-year vesting period. In 2009, the Company issued 184,501 shares of common stock in connection with a licensing agreement.

On February 18, 2014, the Company completed an initial public offering ("IPO") of its common stock, which resulted in the sale of 5,750,000 shares of common stock at a price to the public of \$13.00 per share,

including shares sold pursuant to the exercise in full of the underwriters' option to purchase additional shares. In connection with the closing of the IPO, all of the Company's outstanding redeemable convertible preferred stock automatically converted to common stock as of February 18, 2014, resulting in an additional 8,952,057 shares of common stock of the Company becoming outstanding.

On December 17, 2014, the Company completed a follow-on public offering of its common stock, which resulted in the sale of 5,796,000 shares of the Company's common stock at a price to the public of \$17.00 per share including shares sold pursuant to the exercise in full of the underwriters' option to purchase additional shares.

Each share of common stock entitles the holder to one vote on all matters submitted to a vote of the Company's stockholders. Common stockholders are entitled to receive dividends, as may be declared by the board of directors, if any, subject to the preferential dividend rights of the holders of the Series A and B Preferred Stock. As of December 31, 2014, no dividends have been declared.

## 13. Commitments and Contingencies

## **Operating Leases**

In May 2013, the Company entered into a lease for office space in Burlington, Massachusetts. The lease is for a 42-month term with minimum monthly lease payments beginning at \$17,588 per month and escalating over the lease term. The Company provided a letter of credit to the lessor in the amount of \$98,000 as a security deposit pursuant to the lease agreement to secure its obligations under the lease. During January 2015, this letter of credit was reduced to \$74,000 pursuant to the original lease agreement.

The Company incurred rent expense of \$242,946, \$227,381, and \$123,023 for the years ended December 31, 2014, 2013 and 2012, respectively.

Future minimum lease payments under operating leases as of December 31, 2014, together with the new Burlington lease, were as follows:

Year Ending December 3	<b>31</b> ,
------------------------	-------------

2015	289,972
2016	243,532
Total	\$533,504

#### AstraZeneca License Agreements

On September 3, 2010, the Company entered into an exclusive license agreement with AstraZeneca for FX007. The agreement grants the Company an exclusive, royalty-bearing right and license to the patent rights detailed in the agreement. Per the terms of the license agreement, the Company was required to pay a nonrefundable fee of \$1,000,000: \$500,000 within thirty days of the execution of the agreement and \$500,000 six months after the execution of the agreement. The Company recorded \$1,000,000 as research and development expense during 2010. The agreement includes terms for potential future milestone payments including up to an aggregate of \$21 million upon the achievement of certain regulatory and development milestones for a first licensed product for OA indications, or up to an aggregate of \$15 million upon the achievement of certain regulatory and development, the Company will owe AstraZeneca tiered royalty payments on net sales based on a percentage ranging from low single digits to low double digits, depending on the volume of sales of the applicable product, as well as up to \$75 million in additional payments based on the achievement of certain sales milestones. There were no payments made or expenses recorded under this agreement in 2014, 2013 or 2012.

On June 12, 2009, the Company entered into an exclusive license agreement with AstraZeneca for FX005. The agreement grants the Company an exclusive, royalty-bearing right and license to the patent rights detailed in the agreement. Per the terms of the license agreement, the Company paid a nonrefundable fee of \$1,000,000 upon execution of the agreement. The Company recorded the \$1,000,000 payment as research and development expense during 2009. The agreement includes terms for potential future milestone payments including up to an aggregate of \$17 million upon the achievement of certain regulatory and development milestones for a first licensed product for OA indications, or up to an aggregate of \$11 million upon the achievement of certain regulatory and development milestones for a first-licensed product for non-OA indications. Upon commercialization of a product that results from the technology licensed under the agreement, the Company will owe AstraZeneca tiered royalty payments on net sales based on a percentage ranging from low to high single digits, depending on the volume of sales of the applicable product, as well as up to \$45 million in additional payments based on the achievement of certain sales milestones. There were no payments made or expenses recorded under this agreement in 2014, 2013 or 2012.

#### 14. Stock-Based Compensation

#### **2013 Equity Incentive Plan**

On January 27, 2014, the Company's stockholders approved the 2013 Equity Incentive Plan (the "2013 Plan"), which became effective on February 11, 2014, the date of execution of the underwriting agreement pursuant to which the Company's common stock is priced for its initial public offering. Prior to the effective date of the 2013 Plan, the Company granted stock-based awards pursuant to the 2009 Stock Incentive Plan (the "2009 Plan), which had similar features to the 2013 Plan. The 2013 Plan provides for the grant of incentive stock options ("ISOs"), non-statutory stock options, stock appreciation rights, restricted stock awards, restricted stock unit awards, performance-based stock awards, and other forms of equity compensation. Initially, the maximum number of shares of the Company's common stock that may be issued pursuant to stock awards under the 2013 Plan is 2,337,616, which is the sum of (i) 1,230,012 shares, plus (ii) the number of shares remaining available for grant under the 2009 Plan, plus (iii) any shares subject to outstanding stock options or other stock awards that would have otherwise returned to the 2009 Plan (such as upon the expiration or termination of a stock award prior to vesting). Additionally, the number of shares of common stock reserved for issuance under the 2013 Plan will automatically increase on January 1 of each year, beginning on January 1, 2015 and continuing through and including January 1, 2023, by 4% of the total number of shares of the Company's capital stock outstanding on December 31 of the preceding calendar year, or a lesser number of shares determined by the board of directors. The maximum number of shares that may be issued upon the exercise of ISOs under the 2013 Plan is 4,684,989 shares. As of December 31, 2014, there were 750,791 options outstanding under the 2009 Plan.

The Company currently grants stock-based awards pursuant to the 2013 Plan. As of December 31, 2014, 906,077 shares were available for future issuance under the 2013 Plan. Stock option vesting typically occurs over four years for employees and directors and is at the discretion of the board of directors. Options granted have a maximum term of up to 10 years.

#### Stock Options

During the years ended December 31, 2014, 2013 and 2012, the Company granted stock options for the purchase of 727,575, 201,721, 403,382, shares of common stock, respectively, to certain employees, non-employee consultants and directors. The vesting conditions for most of these awards are time-based, and the awards typically vest 25% after one year and monthly thereafter for the next 36 months, except for annual option grants to non-employee directors of the Company whose initial grants vest 25% after one year and monthly thereafter for the next 24 months and whose annual grants vest in equal monthly installments during the 12-month period following the grant date, pursuant to the Company's Non-Employee Director Compensation Policy. Awards typically expire after 10 years.

Of the stock options granted in 2012 for the purchase of 403,382 shares of common stock options for the purchase of 264,944 shares were granted with performance-based vesting conditions to certain executives. The options were to vest in the event of a corporate transaction with the amount to vest contingent upon the transaction. The grant date fair value of these options was \$236,940. In September 2012, performance-based options for the purchase of 18,450 shares of common stock were forfeited. No expense was recognized related to these options for the year ended December 31, 2012 as the performance conditions were not considered probable of achievement at December 31, 2012. On July 16, 2013, in connection with the Company's proposed initial public offering, the board of directors exercised its election to change the vesting conditions now vest over a four-year period commencing effective August 29, 2012. The change in the vesting conditions was accounted for as a modification of these stock options. The modification resulted in an aggregate increase in the fair value of the options of \$2,185,729, of which \$481,729 was recorded as stock-based compensation expense, which is expected to be recognized over the remaining vesting terms of the options through August 2016.

## **Stock Option Valuation**

The fair value of each stock option grant is estimated on the date of grant using the Black-Scholes optionpricing model. The Company historically has been a private company and lacks company-specific historical and implied volatility information. Therefore, it estimates its expected stock volatility based on the historical volatility of its publicly-traded peer companies and expects to continue to do so until such time as it has adequate historical data regarding the volatility of its own traded stock price. The expected term of the Company's stock options has been determined utilizing the "simplified" method for awards that qualify as "plain vanilla" options. The expected term of stock options granted to non-employees is equal to the contractual term of the option award. The risk-free interest rate is determined by reference to the U.S. Treasury yield curve in effect at the time of grant of the award for time periods approximately equal to the expected term of the award. Expected dividend yield is based on the fact that the Company has never paid cash dividends and does not expect to pay any cash dividends in the foreseeable future. The relevant data used to determine the value of the stock option grants for the years ended December 31, 2014, 2013 and 2012 is as follows:

	December 31,		
	2014	2013	2012
Risk-free interest rates	1.54-2.04%	1.00%	0.93%
Expected dividend yield	0.00%	0.00%	0.00%
Expected term (in years)	6.0	6.0	6.1
Expected volatility	61.9-68.0%	71%	71%

The following table summarizes stock option activity for the years ended December 31, 2014 and 2013:

	Shares Issuable Under Options	Weighted Average Exercise Price
Outstanding as of December 31, 2013	834,983	\$ 2.99
Granted	727,575	16.81
Exercised	(141,141)	2.16
Canceled or forfeited	(132,335)	9.06
Outstanding as of December 31, 2014	1,289,082	\$10.26
Options vested and expected to vest at December 31, 2014	1,100,564	
Options exercisable at December 31, 2014	450,109	

The aggregate intrinsic value of options is calculated as the difference between the exercise price of the options and the fair value of the Company's common stock for those options that had exercise prices lower than

the fair value of the Company's common stock. A total of 141,141, 4,868 and 258,891 options were exercised during the years ended December 31, 2014, 2013 and 2012, respectively. The aggregate intrinsic value of stock options exercised was \$1,476,861, \$45,125 and \$610,600 for the years ended December 31, 2014, 2013 and 2012, respectively.

At December 31, 2014, 2013 and 2012 the Company had options for the purchase of 1,289,082, 834,983, and 662,730 shares of common stock outstanding, with a weighted average remaining contractual term of 8.1, 8.5 and 7.95 years, respectively, and with a weighted average exercise price of \$10.26, \$2.99 and \$1.87 per share, respectively. At December 31, 2014, 2013 and 2012 there were options for the purchase of 450,109, 386,334 and 198,439 shares of common stock exercisable under these stock option awards, respectively.

The weighted average grant date fair value of options granted during the years ended December 31, 2014, 2013 and 2012 was \$9.99, \$6.99 and \$1.63, respectively.

### **Restricted Common Stock**

The Company's 2009 and 2013 Plans provide for the award of restricted stock. The Company has granted restricted common stock with time-based vesting conditions. Unvested shares of restricted common stock may not be sold or transferred by the holder. These restrictions lapse according to the time-based vesting.

During the years ended December 31, 2014, 2013, and 2012 the Company did not issue any shares of restricted common stock.

As of December 31, 2014 and 2013, there were no shares related to restricted stock awards that were unvested and subject to repurchase.

The aggregate intrinsic value of restricted stock awards is calculated as the difference between the grant date fair value of the restricted stock awards and the fair value of the Company's common stock at December 31, 2014, 2013, and 2012, respectively. For the years ended December 31, 2014, 2013 and 2012, the aggregate intrinsic value of vested restricted stock awards was \$0, \$0, and \$1,422,711, respectively, and for restricted stock awards expected to vest was \$0, \$0 and \$1,741, respectively. The weighted average remaining contractual term for restricted stock awards as of December 31, 2014, 2013 and 2012 was 0 years. The fair value of restricted stock awards that vested during the years ended December 31, 2014, 2013 and 2012 was \$0, \$0, and \$2.52, respectively, per share.

#### **Stock-based Compensation**

The Company recorded stock-based compensation expense related to stock options and restricted stock for the years ended December 31, 2014, 2013 and 2012 as follows:

	Year Ended December 31,		
	2014	2013	2012
Research and development	\$ 684,511	\$347,470	\$36,258
General and administrative	1,766,068	648,697	60,020
	\$2,450,579	\$996,167	\$96,278

As of December 31, 2014, unrecognized stock-based compensation expense for stock options outstanding was \$7,835,365, which is expected to be recognized over a weighted average period of 2.9 years.

## **Employee Stock Purchase Plan**

On January 27, 2014, the Company's stockholders approved the Employee Stock Purchase Plan. A total of 209,102 shares of common stock were reserved for issuance under this plan. The Employee Stock Purchase Plan became effective on February 11, 2014, the date of execution of the underwriting agreement pursuant to which the Company's common stock is priced for its initial public offering. During the year ended December 31, 2014, 6,770 shares were purchased by employees under the plan.

# 15. Net Loss Per Share

Basic and diluted net loss per share attributable to common stockholders was calculated as follows for the years ended December 31, 2014, 2013 and 2012:

	Year Ended December 31,		
	2014	2013	2012
Numerator:			
Net loss	\$(27,313,664)	\$(18,186,724)	\$(14,981,619)
Accretion of dividends on convertible preferred stock			_
Net income attributable to participating securities			
Net loss attributable to common stockholders:	\$(27,313,664)	\$(18,186,724)	\$(14,981,619)
Denominator:			
Weighted average common shares outstanding, basic and			
diluted	13,893,961	790,038	543,301
Net loss per share attributable to common stockholders,			
basic and diluted	\$ (1.97)	\$ (23.02)	\$ (27.58)

Stock options for the purchase of 1,185,253, 648,591, and 580,419 weighted average shares of common stock were excluded from the computation of diluted net loss per share attributable to common stockholders for the years ended December 31, 2014, 2013 and 2012, respectively, because those options had an anti-dilutive impact due to the net loss attributable to common stockholders incurred for those periods. In addition, 0, 0, and 36 weighted average shares of unvested restricted common stock were excluded from the computation of basic and diluted net loss per share attributable to common stockholders for the years ended December 31, 2014, 2013 and 2012, respectively.

# 16. Income Taxes

The Company has generated losses since inception. The Company has recorded no income tax benefits for those losses during the years ended December 31, 2014 and 2013, respectively, due to its uncertainty of realizing a benefit from those losses.

A reconciliation of the U.S. federal statutory income tax rate to the Company's effective income tax rate is as follows:

	Year Ended December 31,	
	2014	2013
Federal statutory income tax rate	34.0%	34.0%
State taxes, net of federal benefit	4.7	4.8
Federal and state research and development tax credits	3.5	3.7
Change in deferred tax asset valuation allowance	(37.8)	(38.1)
Other	(4.4)	(4.4)
Effective income tax rate	%	%

The Company's net deferred tax assets consisted of the following:

	December 31,	
	2014	2013
Net operating loss carryforwards	\$ 17,728,075	\$ 13,677,136
Research and development tax credit carryforwards	3,185,552	2,333,715
Capitalized research and development expenses, net	12,780,675	7,397,849
Accruals and other temporary differences	131,571	84,716
Total deferred tax assets	33,825,873	23,493,416
Valuation allowance	(33,825,873)	(23,493,416)
Net deferred tax asset	<u>\$                                    </u>	<u>\$                                    </u>

As of December 31, 2014, the Company had federal and state net operating loss carryforwards of approximately \$45,692,802 and \$41,525,046, respectively, which begin to expire in 2029 for federal purposes and in 2030 for state purposes. In addition, the Company had federal and state research and development tax credit carryforwards of approximately \$2,138,292 and \$1,586,758, respectively, available to reduce future tax liabilities, which begin to expire in 2029 for federal purposes and 2025 for state purposes. Management of the Company has evaluated the positive and negative evidence bearing upon the realizability of its deferred tax assets, which are comprised principally of net operating loss carryforwards and capitalized research and development expenses. Management has considered the Company's history of cumulative net losses incurred since inception, as well as its lack of commercialization of any products or generation of any revenue from product sales since inception, and determined that it is more likely than not that the Company will not realize the benefits of its deferred tax assets. As a result, a full valuation allowance has been established at December 31, 2014 and 2013.

Section 382 of the Internal Revenue Code of 1986, as amended ("Section 382"), contains rules that limit the ability of a company that undergoes an ownership change to utilize its net operating losses ("NOLs") and tax credits existing as of the date of such ownership change. Under the rules, such an ownership change is generally any change in ownership of more than 50% of a company's stock within a rolling three-year period. The rules generally operate by focusing on changes in ownership among stockholders considered by the rules as owning, directly or indirectly, 5% or more of the stock of a company and any change in ownership arising from new issuances of stock by the company. During the quarter ended June 30, 2014, the Company completed a Section 382 study through February 11, 2014. The results of this study showed that as of February 11, 2014, one historical ownership change within the meaning of Section 382 had occurred in 2009. As a result of this Section 382 limitation, approximately \$0.3 million of NOLs will expire unutilized. In addition, the Company recently completed another Section 382 study through December 31, 2014. The results of this study showed that the Company experienced an ownership change in 2014 as part of the follow-on offering, however, none of the NOLs will expire due to the Section 382 limitation associated with the ownership change, assuming sufficient future taxable income and no future limitations. Subsequent ownership changes as defined by Section 382 may potentially limit the amount of net operating loss carryforwards that could be utilized annually to offset future taxable income. The Company has generated losses since inception and therefore has recorded no income tax benefits for those losses due to its uncertainty of realizing a benefit from those losses.

Changes in the valuation allowance for deferred tax assets during the years ended December 31, 2014 and 2013 were as follows:

	Year Ended December 31,	
	2014	2013
Valuation allowance as of beginning of year	\$(23,493,416)	\$(16,548,999)
Decreases recorded as benefit to income tax provision	2,020,565	1,726,638
Increases recorded to income tax provision	(12,353,022)	(8,671,055)
Valuation allowance as of end of year	\$(33,825,873)	\$(23,493,416)

In each reporting period, the Company considers whether a tax position of the Company is more likely than not to be sustained upon examination, including resolution of any related appeals of litigation processes, based on the technical merits of the position. For tax positions meeting the more likely than not threshold, the tax amount recognized in the financial statements is reduced by the largest benefit that has a greater than fifty percent likelihood of being realized upon the ultimate settlement with the relevant taxing authority. No liabilities for unrecognized tax benefits were recorded as of December 31, 2014 and 2013.

The Company files tax returns as prescribed by the tax laws of the jurisdictions in which it operates. In the normal course of business, the Company is subject to examination by federal and state jurisdictions, where applicable. There are currently no pending tax examinations. The Company's tax years are still open under statute from 2011 to the present. Earlier years may be examined to the extent that tax credit or net operating loss carryforwards are used in future periods. The resolution of tax matters is not expected to have a material effect on the Company's consolidated financial statements.

#### 17. Quarterly Financial Data (unaudited)

The following information has been derived from unaudited consolidated financial statements that, in the opinion of management, include all recurring adjustments necessary for a fair statement of such information.

	Three Months Ended			
	March 31, 2014	June 30, 2014	September 30, 2014	December 31, 2014
Operating expenses	\$ 6,434,760 (6,542,244)		\$ 6,962,319 (7,035,607)	. , ,
Net loss per common share—basic and diluted Weighted average common shares—basic and	\$ (0.86)	\$ (0.38)	\$ (0.45)	\$ (0.47)
diluted	7,632,786	15,619,151	15,624,963	16,523,385
		Three Mor	nths Ended	
	March 31, 2013	Three Mon June 30, 2013	nths Ended September 30, 2013	December 31, 2013
Operating expenses	2013	June 30, 2013	September 30,	2013
Operating expenses	2013	June 30, 2013 \$ 4,490,078	September 30, 2013 \$ 4,990,196	2013 \$ 3,577,296
	2013 \$ 4,707,639 (4,798,087)	June 30, 2013 \$ 4,490,078 (4,597,774)	September 30, 2013 \$ 4,990,196	2013 \$ 3,577,296 (3,690,485)

#### 18. Subsequent Events

There were no subsequent events that require disclosure in the financial statements for the period ended December 31, 2014.

#### 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**

We are responsible for maintaining disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act. Disclosure controls and procedures are controls and other procedures designed to ensure that the information required to be disclosed by us in the reports that we file or submit under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is accumulated and communicated to our management, including our principal executive officer and our principal financial officer, as appropriate to allow timely decisions regarding required disclosure.

Based on our management's evaluation (with the participation of our principal executive officer and our principal financial officer) of our disclosure controls and procedures as required by Rules 13a-15(e) and Rule 15d-15(e) under the Exchange Act, our principal executive officer and our principal financial officer have concluded that our disclosure controls and procedures were effective to achieve their stated purpose as of December 31, 2014, the end of the period covered by this report.

#### Management's Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting as such term is defined in Exchange Act Rule 13a-15(f). Internal control over financial reporting is a process designed under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with accounting principles generally accepted in the United States of America.

As of December 31, 2014, our management assessed the effectiveness of our internal control over financial reporting using the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission in Internal Control-Integrated Framework (2013 Framework). Based on this assessment, our management concluded that, as of December 31, 2014, our internal control over financial reporting was effective based on those criteria. All internal control systems, no matter how well designed, have inherent limitations. Therefore, even those systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and presentation.

This annual report does not include an attestation report of our registered public accounting firm due to a transition period established by the JOBS Act for emerging growth companies.

#### **Changes in Internal Control over Financial Reporting**

There were no changes in our internal control over financial reporting during the quarter ended December 31, 2014 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

#### Item 9B. Other Information

We expect that our 2015 annual meeting of stockholders, or the Annual Meeting, will be held on or about June 17, 2015. To be considered for inclusion in the Company's proxy materials for the Annual Meeting, stockholder proposals must be submitted in writing between the date of this Annual Report and April 6, 2015, to the attention of the Secretary of Flexion Therapeutics, Inc. at 10 Mall Road, Suite 301, Burlington, Massachusetts 01803. If stockholders wish to submit a proposal (including a director nomination) at the Annual Meeting that is not to be included in our proxy materials for the Annual Meeting, the written request must be received by the Secretary of Flexion Therapeutics, Inc. no later than the close of business on April 6, 2015. Stockholders are also advised to review our Bylaws, which contain additional requirements about advance notice of stockholder proposals and director nominations.

#### PART III

#### Item 10. Directors, Executive Officers and Corporate Governance

The information required by this item and not set forth below will be set forth in the section headed "Election of Directors" and "Executive Officers" in our Proxy Statement for our 2015 Annual Meeting of Stockholders, or Proxy Statement, to be filed with the SEC within 120 days after the end of the fiscal year ended December 31, 2014, and is incorporated herein by reference.

We have adopted a written code of business conduct and ethics that applies to our directors, officers and employees, including our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions. A current copy of the code is available on the Corporate Governance section of our website, www.flexiontherapeutics.com. We intend to disclose on our website any amendments to, or waivers from, our code of business conduct and ethics that are required to be disclosed pursuant to SEC rules.

#### Item 11. Executive Compensation

The information required by this item will be set forth in the section headed "Executive Compensation" in our Proxy Statement and is incorporated herein by reference.

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

The information required by this item will be set forth in the section headed "Security Ownership of Certain Beneficial Owners and Management" in our Proxy Statement and is incorporated herein by reference.

The information required by Item 201(d) of Regulation S-K will be set forth in the section headed "Executive Compensation" in our Proxy Statement and is incorporated herein by reference.

#### Item 13. Certain Relationships and Related Transactions, and Director Independence

The information required by this item will be set forth in the section headed "Transactions With Related Persons" in our Proxy Statement and is incorporated herein by reference.

#### Item 14. Principal Accounting Fees and Services

The information required by this item will be set forth in the section headed "Ratification of Selection of Independent Registered Public Accounting Firm" in our Proxy Statement and is incorporated herein by reference.

## PART IV

## Item 15. Exhibits, Financial Statement Schedules

## (a) Documents filed as part of this report.

## 1. Financial Statements

The financial statements of Flexion Therapeutics, Inc. listed below are set forth in Item 8 of this report for the year ended December 31, 2014:

	Page
Report of Independent Registered Public Accounting Firm	81
Consolidated Balance Sheets	82
Consolidated Statements of Operations and Comprehensive Loss	83
Consolidated Statements of Preferred Stock and Stockholders' Deficit	84
Consolidated Statements of Cash Flows	85
Notes to Consolidated Financial Statements	86

## 2. Financial Statement Schedules

These schedules have been omitted because the required information is included in the consolidated financial statements or notes thereto or because they are not applicable or not required.

#### 3. Exhibits

For a list of exhibits filed with this Annual Report on Form 10-K, refer to the exhibit index. Each management contract or compensatory plan or arrangement required to be identified by this item is so designated in such list.

#### 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.

Date: March 24, 2015

## FLEXION THERAPEUTICS, INC.

By: /s/ Michael D. Clayman, M.D.

Michael D. Clayman, M.D. President and Chief Executive Officer

## **POWER OF ATTORNEY**

**KNOW ALL PERSONS BY THESE PRESENTS**, that each person whose signature appears below constitutes and appoints Michael D. Clayman, M.D. and Frederick W. Driscoll, and each of them, his true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution, for him and in his name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this report, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or either of them, or their or his substitutes or substitute, may lawfully do or cause to be done by virtue hereof.

Signature	Title	Date
/s/ Michael D. Clayman, M.D. Michael D. Clayman, M.D.	President, Chief Executive Officer and Member of the Board of Directors (Principal Executive Officer)	March 24, 2015
/s/ Frederick W. Driscoll Frederick W. Driscoll	Chief Financial Officer (Principal Financial and Accounting Officer)	March 24, 2015
/s/ Patrick J. Mahaffy Patrick J. Mahaffy	Chairman of the Board of Directors	March 24, 2015
/s/ Scott Canute Scott Canute	Member of the Board of Directors	March 24, 2015
/s/ Samuel D. Colella Samuel D. Colella	Member of the Board of Directors	March 24, 2015
/s/ Heath Lukatch, Ph.D. Heath Lukatch, Ph.D.	Member of the Board of Directors	March 24, 2015
/s/ Sandesh Mahatme Sandesh Mahatme	Member of the Board of Directors	March 24, 2015

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
/s/ Ann Merrifield Ann Merrifield	Member of the Board of Directors	March 24, 2015
/s/ Alan Milinazzo Alan Milinazzo	Member of the Board of Directors	March 24, 2015

## EXHIBIT INDEX

Exhibit number	Description
3.1(1)	Amended and Restated Certificate of Incorporation of the Registrant.
3.2(1)	Amended and Restated Bylaws of the Registrant.
4.1(2)	Form of Common Stock Certificate of the Registrant.
4.2(2)	Amended and Restated Investor Rights Agreement, dated December 3, 2012, by and among the Registrant and certain of its stockholders.
4.3(2)	Conversion, Amendment and Waiver Agreement, dated January 27, 2014, by and among the Registrant and certain of its stockholders.
10.1 + (2)	Form of Indemnity Agreement by and between the Registrant and its directors and officers.
10.2 + (2)	Flexion Therapeutics, Inc. 2009 Equity Incentive Plan and Forms of Stock Option Agreement, Notice of Exercise and Stock Option Grant Notice thereunder.
10.3+ <sup>(2)</sup>	Flexion Therapeutics, Inc. 2013 Equity Incentive Plan and Forms of Stock Option Agreement, Notice of Exercise and Stock Option Grant Notice thereunder.
10.4 + (2)	Flexion Therapeutics, Inc. 2013 Employee Stock Purchase Plan.
10.5 + (3)	Flexion Therapeutics, Inc. Non-Employee Director Compensation Policy, as revised.
10.6 + (2)	Amended and Restated Offer Letter by and between the Registrant and Michael D. Clayman, M.D.
10.7+ <sup>(3)</sup>	Amendment to Amended and Restated Offer Letter by and between the Registrant and Michael D. Clayman, M.D.
10.8 + (2)	Amended and Restated Offer Letter by and between the Registrant and Neil Bodick, M.D., Ph.D.
10.9+ <sup>(3)</sup>	Amendment to Amended and Restated Offer Letter by and between the Registrant and Neil Bodick, M.D., Ph.D.
$10.10+^{(2)}$	Amended and Restated Offer Letter by and between the Registrant and Fred Driscoll.
10.11 + (3)	Amendment to Amended and Restated Offer Letter by and between the Registrant and Fred Driscoll.
10.12*(2)	Out-License Agreement, dated June 12, 2009, by and between the Registrant (as successor in interest to Flexion Therapeutics AG) and AstraZeneca AB.
10.13*(2)	Out-License Agreement, dated September 3, 2010, by and between the Registrant and AstraZeneca AB.
$10.14^{*(2)}$	Letter Agreement, dated December 3, 2012, by and between the Registrant and AstraZeneca AB.
$10.15^{*(4)}$	Letter Agreement, dated March 17, 2014, by and between the Registrant and AstraZeneca AB.
10.16(2)	Credit and Security Agreement, dated January 3, 2013, by and between the Registrant and MidCap Financial SBIC, LP.
10.17(2)	Lease, dated February 22, 2013, by and between the Registrant and The Trustees of Mall Road Trust.
10.18 + (5)	Flexion Therapeutics, Inc. Change in Control Bonus Plan.
21.1	Subsidiaries of Flexion Therapeutics, Inc.
23.1	Consent of PricewaterhouseCoopers LLP, Independent Registered Public Accounting Firm.
24.1	Power of Attorney. Reference is made to the signature page hereto.
31.1	Certification of the Principal Executive Officer pursuant to Rule 13a-14(a) or 15d-14(a) of the Securities Exchange Act of 1934.

Exhi numl	
31.	2 Certification of the Principal Financial Officer pursuant to Rule 13a-14(a) or 15d-14(a) of the Securities Exchange Act of 1934.
32.	1 Certification of Principal Executive Officer pursuant to Rule 13a-14(b) or 15d-14(b) of the Exchange Act and 18 U.S.C. Section 1350.
32.	2 Certification of Principal Financial Officer pursuant to Rule 13a-14(b) or 15d-14(b) of the Exchange Act and 18 U.S.C. Section 1350.
+ * (1)	Indicates management contract or compensatory plan. Confidential treatment has been granted with respect to certain portions of this exhibit. Omitted portions have been filed separately with the Securities and Exchange Commission. Incorporated by reference to the Registrant's Current Report on Form 8-K, filed with the SEC on February 19, 2014.
(2)	Incorporated by reference to the Registrant's Registration Statement on Form S-1 (File No. 333-193233), as amended.
(3)	Incorporated by reference to the Registrant's Annual Report on Form 10-K, filed with the SEC on March 28, 2014.
(4)	Incorporated by reference to the Registrant's Quarterly Report on Form 10-Q, filed with the SEC on May 12, 2014.
(5)	Incorporated by reference to the Registrant's Current Report on Form 8-K, filed with the SEC on September 2, 2014.



## **Management Team**

Michael Clayman, MD Chief Executive Officer & Co-Founder

Neil Bodick, MD, PhD Chief Medical Officer & Co-Founder

Fred Driscoll Chief Financial Officer

Christina Willwerth Senior Vice President, Program Management

Rahul Ballal, PhD Vice President, Business Development

Judy Carmody, PhD Vice President, Quality Assurance and Control

Lisa Davidson, MBA Vice President, Finance and Administration

Dan Deardorf, MBA Vice President, Commercial

Dan Leblanc, MS Vice President, CMC Operations

Joelle Lufkin, MPH Vice President, Clinical Operations

**Joseph Vittiglio, JD** Vice President, Legal Affairs

Kerry Wentworth Vice President, Regulatory Affairs

# Corporate Headquarters

10 Mall Road, Suite 301 Burlington, MA 01803

## Legal Counsel

Cooley LLP San Diego, CA

## Independent Auditors

PricewaterhouseCoopers LLP Boston, MA

## **Transfer Agent**

Computershare Trust Company College Station, TX

## Annual Meeting

The Annual Meeting of Stockholders will be

Wednesday, June 17, 2015 at 1:30 p.m., ET

Marriott Hotel 1 Mall Road Burlington, MA 01803

Stock Information

The common stock of the company is traded on the Nasdaq Global Market under the symbol FLXN

## **Board of Directors**

Patrick Mahaffy (Chairman of the Board) President and CEO, Clovis Oncology

Michael Clayman, MD Chief Executive Officer and Co-Founder Flexion Therapeutics

Scott Canute, MBA President, Magis Consulting LLC

Sam Colella, MBA Managing Director, Versant Ventures

Heath Lukatch, PhD Partner, Novo Ventures (US)

Sandy Mahatme, LLM Senior VP and CFO, Sarepta Pharmaceuticals

Ann Merrifield, MBA Independent, Former CEO of PathoGenetix, Inc.

Alan Milinazzo President and CEO, InspireMD

We will provide stockholders without charge, upon written request, a copy of our Annual Report on Form 10-K, including the financial statements, schedules and list of exhibits. We will furnish stockholders a copy of any exhibit to such report upon written request and payment of reasonable expenses in furnishing the exhibit. Requests should be sent to Investor Relations at our corporate headquarters. In addition, our Annual Report on Form 10-K, other fillings with the Securities and Exchange Commission, and press releases, along with general information about our business, are available through our website at www.ftexiontherapeutics.com.



Flexion Therapeutics 10 Mall Road, Suite 301 Burlington, Massachusetts 01803 Main: 781.305.7777 Fax: 781.202.3399 www.FlexionTherapeutics.com